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LAN ASSOCIATES

ENGINEERING ▪ PLANNING ▪ ARCHITECTURE ▪ SURVEYING, LLP

252 MAIN STREET, GOSHEN, NY 10924

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CONTRACT DOCUMENTS

AND

TECHNICAL SPECIFICATIONS

FOR

ASPIRE BREWING

PROPOSED TAP ROOM & BREWERY

FOR

**SONNY PATEL BREWING COMPANY, INC.
400/600 NORTH GALLERIA DRIVE, LOWER LEVEL
MIDDLETOWN, NY 10941**

**LAN Job #4.1552.01
October 15, 2021**

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Michael J. McGovern, RA
NY RA #022257

**LAN Job #4.1552.01
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SINCE 1965

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BID INVITATION

Aspire Brewing – Proposed Tap Room & Brewery

Your company is formally invited to submit a bid for the construction of Aspire Brewing located at 400 North Galleria Drive in the Town of Wallkill, New York.

A detailed description of the work is included in the bid documents.

Sealed bid proposals shall be received by 10:00 a.m. prevailing time on Thursday, November 18, 2021, by mail or in person at the offices of Beer World located at 590 Route 211 in Middletown, NY 10941. All bids must be received by 10:00 a.m. prevailing time.

Bids will be privately opened and reviewed on the afternoon of Thursday, November 18, 2021.

All envelopes containing bids shall bear on the face of the sealed envelope the words "Bid for Aspire Brewing – Proposed Tap Room & Brewery". No Bids shall be accepted after 10:00 a.m. prevailing time on Thursday, November 18, 2021. Please be reminded that USPS, UPS and FedEx delivery schedules may be limited. Please allow enough time for your proposal to arrive on or before the due date and time.

The plans and specifications may be obtained at REV Ventures, Inc., 330 Route 17A, Suite 3, Goshen, NY 10924, or at their website www.usinglesspaper.com or by phone (845) 651-3845 between 9:00 a.m. and 5:00 p.m. Monday through Friday beginning on **Monday, October 18, 2021**. Complete digital sets of bid documents, drawings and specifications may also be viewed online with a free user account or downloaded for a non-refundable fee of Forty-Nine (\$49.00) dollars at www.usinglesspaper.com under public projects.

All bid addenda will be transmitted to plan holders via email and will be available at www.usinglesspaper.com. Plan holders who have paid a deposit for hard copies of the bid documents will need to make the determination if hard copies of the addenda are required for their use, and coordinate directly with Rev. Ventures Inc. for hard copies of addenda to be issued. There will be no charge for registered plan holders to obtain hard copies of the bid addenda.

Any questions regarding the bid process shall be directed to Matthew Milnamow, Project Architect, via email to matthew.milnamow@lanassociates.com. All technical questions related to the design and scope of work should be submitted to Christopher Bechtler, Design Architect, via email to christopher.bechtler@lanassociates.com and copied to Matthew Milnamow.

Each Bidder shall submit their bid proposal with a bid security, in accordance with the terms and subject to the conditions set forth in the Bid Specifications. Each bid must be accompanied by a bid security in the form of a certified check or by a Bid Bond in an amount equal to ten percent (10%) of the bid. Bidders may not withdraw their respective bids for a period of sixty (60) days after the bid opening date. The Owner further reserves the right to reject bids that contain conditions, omissions, exceptions or modifications, or in its sole discretion to waive any irregularities in the bids, or to reject any or all bids or to accept any bid which in the opinion of the Owner is in its best interest.

SECTION 000115 – LIST OF DRAWINGS

LIST OF DRAWINGS
(24" x 36" Not Bound in Specifications)

<u>DRWG.</u> <u>NO.</u>	<u>TITLE</u>
T0.01	TITLE SHEET & GENERAL NOTES
CA0.01	CODE ANALYSIS
CA0.02	CODE ANALYSIS
CA0.03	CODE ANALYSIS PLAN
CA0.10	FIRST FLOOR EGRESS PLAN
SP1.01	SITE PLAN
SP2.01	EXTERIOR DEMOLITION PLAN
SP2.02	SITE PLAN - DETAIL
SP2.03	ENTRANCE MODIFICATION DETAILS
SP2.04	LIGHTING PLAN
CD2.01	CONSTRUCTION DETAILS
CD2.02	SEWER DETAILS
S2.01	FOUNDATION PLAN
S2.02	SECOND FLOOR FRAMING PLAN
S2.03	ROOF FRAMING PLAN
S2.04	DUNNAGE FRAMING PLAN
S4.01	SECTIONS
S4.02	SECTIONS
S6.01	GENERAL NOTES AND TYPICAL DETAILS
S6.02	TYPICAL DETAILS
A1.00	DEMOLITION KEY NOTES
A1.01	FIRST FLOOR DEMOLITION PLAN
A1.10	SECOND FLOOR DEMOLITION PLAN
A1.20	ROOF DEMOLITION PLAN
A1.30	DEMOLITION ELEVATIONS
A2.00	CONSTRUCTION KEY NOTES
A2.01	PROPOSED FIRST FLOOR PLAN
A2.02	PROPOSED PARTIAL FIRST FLOOR PLAN
A2.03	PROPOSED PART. FIRST FLOOR SLAB PLAN
A2.05	ENLARGED PARTIAL FLOOR PLANS
A2.10	SECOND FLOOR PROPOSED PLAN
A2.20	ROOF PROPOSED PLAN
A3.01	PROPOSED ELEVATIONS
A3.10	PROPOSED ENLARGED ELEVATIONS
A4.01	PROPOSED BUILDING SECTIONS
A4.10	WALL SECTIONS
A4.11	DETAILS
A4.20	PROPOSED SECTIONS & DETAILS
A5.00	CEILING TYPES & DETAILS
A5.01	PROPOSED FIRST FLOOR RCP
A5.02	ENLARGED REFLECTED CEILING PLANS

LIST OF DRAWINGS
(24" x 36" Not Bound in Specifications)

(Continued)

<u>DRWG.</u> <u>NO.</u>	<u>TITLE</u>
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A6.02	DOOR & FRAME TYPES
A6.03	DOOR & FRAME TYPES
A6.04	DOOR HARDWARE
A6.05	DOOR HARDWARE
A6.06	DOOR AND FRAME DETAILS
A6.07	DOOR AND FRAME DETAILS
A6.10	WINDOW SCHEDULE & WINDOW TYPES
A6.11	WINDOW DETAILS
A6.20	INTERIOR FINISH SCHEDULE
A7.01	INTERIOR ELEVATIONS
A7.02	INTERIOR ELEVATIONS
A7.03	INTERIOR ELEVATIONS
A7.50	ENLARGED TOILET ROOM PLANS
A7.51	TOILET ROOM ELEVATIONS
A7.52	TOILET ROOM ELEVATIONS
A7.53	TOILET ROOM ELEVATIONS
A8.01	PARTITION TYPES & DETAILS
A8.10	ROOF DETAILS
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A9.01	FIRST FLOOR - FLOOR FINISH PLAN
A9.10	FIRST FLOOR FURNISHING PLAN
A9.11	FIRST FLOOR FURNISHING DETAILS
A9.12	FIRST FLOOR FURNISHING DETAILS
FS1.01	FOOD SERVICE EQUIPMENT PLAN
FS1.02	FOOD SERVICE EXHAUST HOOD DETAILS
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FS1.04	FOOD SERVICE EXHAUST HOOD DIAGRAMS
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FS1.07	FOOD SERVICE TYPICAL NOTES
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FP2.01	PARTIAL FIRST FLOOR PLAN
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FP7.01	EQUIPMENT SCHEDULES
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P2.03	PARTIAL FLOOR PLANS
P2.04	PARTIAL ROOF PLAN
P4.01	ENLARGED KITCHEN AREA PLANS
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LIST OF DRAWINGS
(24" x 36" Not Bound in Specifications)

(Continued)

<u>DRWG.</u> <u>NO.</u>	<u>TITLE</u>
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M1.01	PARTIAL FIRST FLOOR DEMOLITION PLAN
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M2.02	PARTIAL SECOND FLOOR PLAN
M2.03	PARTIAL ROOF PLAN
M4.01	ENLARGED BREWERY AREA PLANS
M6.01	DETAILS
M6.02	DETAILS
M6.03	DETAILS
M6.04	DETAILS
M6.05	DETAILS
M7.01	EQUIPMENT SCHEDULES
M7.02	EQUIPMENT SCHEDULES
M7.03	EQUIPMENT SCHEDULES
E1.01	PARTIAL FIRST FLOOR DEMOLITION PLAN
E1.02	PARTIAL ROOF DEMOLITION PLAN
E2.00	FIRST FLOOR PLAN
E2.01	PARTIAL FIRST FLOOR PLAN
E2.02	PARTIAL SECOND FLOOR PLAN
E2.03	PARTIAL ROOF PLAN
E3.01	ELEVATIONS
E4.01	ENLARGED KITCHEN AREA PLAN
E5.01	PARTIAL FIRST FLOOR RC PLAN
E6.01	DETAILS
E6.02	DETAILS
E6.03	DETAILS
E7.01	EQUIPMENT SCHEDULES
E7.02	SCHEDULES

END OF SECTION 000115

SECTION 002113 – INSTRUCTIONS TO BIDDERS

1.0 Opening of Bids: Bids must be submitted by 10:00 am on Thursday, November 18, 2021. The bids will be opened and reviewed privately by the Owner and LAN Associates on the afternoon of November 18th at their office in Middletown, NY. Any bid may be withdrawn prior to the bid opening. No bidder may withdraw a bid within sixty (30) days after the date of the bid opening. Conditional bids shall be carefully explained by the bidder.

2.0 Bidding Documents: The bidding documents include the Bid Invitation, Instruction to Bidders, Form of Proposal, General Conditions, Division 1 - General Requirements, Specifications, Drawings, and all Addenda issued prior to the opening of bids.

Most importantly, the bidder must submit a detailed cost estimate outlined in CSI format with their bid proposal.

3.0 Preparation of Proposal: Proposals must be submitted on the required bid forms. All blank spaces must be filled in, in ink or typewritten, in figures where so indicated.

All envelopes containing bids shall bear on the face of the sealed envelope the words "Aspire Brewing – Proposed Tap Room & Brewery". Each proposal must be submitted in a sealed envelope and shall have clearly designated on the outside the name and address of the bidder and the name of the project.

4.0 Qualification of Bidders: The Owner may make such investigation as they deem necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Owner all information and data for this purpose as the Owner may request. The Owner reserves the right, in its sole discretion, to reject any bid if the evidence submitted by or investigation of such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated herein within the time limit agreed upon.

5.0 Bid Security: Each proposal shall be accompanied by a bid bond or certified check. The choice of security to be at the option of the Contractor. Bid security shall be in amounts as follows:

1. Bid Bond shall be in the amount of 10% of the base bid and shall be on AIA Form A310. It shall be duly executed by the bidder as principal, having as surety thereon a surety company approved by the Owner.
2. Certified checks shall be in the amount of 10% of the base bid.

The aforementioned bid security will be returned to all except the two (2) lowest formal bidders within seven (7) days after the formal opening of the proposals. The remaining security will be returned to the two (2) lowest bidders within 48 hours after the Owner and the accepted bidder have executed the contract, or, if no contract has been so executed, within sixty (60) days after the bid opening so long as the bidder has not been notified of the acceptance of his proposal.

6.0 Liquidated Damages for Failure to Enter Into Contract: A successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within ten (10) days after he has received notice of the acceptance of his proposal, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his proposal. Bidder acknowledges that its bid is an offer to contract and that the Owner's award of the contract is acceptance of that offer, thereby created a binding agreement.

7.0 Subcontractors and Material Suppliers: The successful bidder for each Contract shall submit to the Architect/Engineer within ten (10) calendar days after receipt of notification of award of contract, on the form supplied, a list of subcontractors, material suppliers, and manufacturers proposed for the various portions of the work.

8.0 Conditions of Work: Each bidder must inform himself fully of the conditions relating to the construction and labor under which the work is now being or will be performed. Failure to do so will not relieve a successful bidder of his obligations to furnish all material and labor necessary to carry out the provisions of the contract documents and to complete the contemplated work for the consideration set forth in his bid. The Contractor in the carrying out of his work must employ such methods or means as will not cause any interruption or interference with the work of any other contractor, or the operations of the Owner.

9.0 Obligations of Bidders and Mandatory Site Inspections: At the time of the opening of bids, each bidder will be presumed to have inspected the site, to have familiarized himself with local conditions, and to have read and to be thoroughly familiar with the bidding documents, including all addenda. The failure or omission of any bidder to receive or examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect to his bid.

10.0 Addenda and Interpretations: No interpretations of the meaning of the drawings, specifications or other contract documents will be formally provided to any bidder orally. Every request for such interpretation shall be emailed to: Chris Bechtler (christopher.bechtler@lanassociates.com) and copied to Matthew Milnamow (matthew.milnamow@lanassociates.com) of LAN Associates and to be given consideration must be received at least five (5) days prior to the date of the bid opening. Any and all such interpretations and any supplementary instructions will be in the form of written addenda to the specifications or addenda drawings. Addenda will be emailed to all prospective bidders at the respective email address furnished for the purchase of drawings not later than three (3) days prior to the date as fixed for opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve any bidder from any obligations under this bid as submitted. All addenda so issued shall become part of the contract documents.

11.0 Security for Faithful Performance: The successful bidder shall deliver to the Owner, simultaneously with the executed contract, an executed Performance and Payment bond on AIA Form A312 in duplicate, each in the amount of one hundred percent (100%) of the contract amount, as specified hereinafter under the General Conditions. The premium for said bonds shall be included in the Contractor's Base Bid. The surety company or companies shall be acceptable to the Owner and Architect/Engineer and authorized to transact business in New York State.

The current power of attorney for the person who signs for any surety company shall be attached to such bond, indicating the surety or sureties on the bond.

12.0 Method of Award: The Owner reserves the right to consider, reject, negotiate, and/or award any bid for any reason that is in the best interests of the Owner. The Owner reserves the right to reject any, and all bids.

13.0 Post-Bid Vetting: The Owner and LAN may initiate a post-bid vetting process that will likely consist of an in-person meeting to review the bid proposal, qualify the bid and discuss value engineering suggestions.

Submissions must be emailed and must include the Project Name of this contract in the subject Line of the Pre-Award submission email.

(1) Pre-award Submittal Package

- (i) Fully executed AIA A305 Contractors Qualification Statement
- (ii) Most recent financial statement certified by CPM
- (iii) References and experience:
 1. List of all past relevant contracts for Hospitality Projects (Bars, Restaurants & Breweries)
 2. Provide references (Name, Title, and Phone Number for Owner , Architect and Construction manager) associated with five (5) different projects of

similar scope, size and complexity to the one identified in this contract. Additionally, include the names of two major suppliers used for each of these projects.

- (2) Workforce and Work Plan – Provide a detailed written Work Plan which shall demonstrate the contractor's understanding of overall project scope and shall include, but not be limited, to the following:
- (i) Sequential listing of specific project activities required to successfully complete the Work of the contract.
 - 1. Include Critical Milestones,
 - 2. Include phasing of the Work, if required.
 - 3. Include listing of long lead items.
 - 4. Statement that the project can be completed in established time.
 - (ii) Resumes for Contractor's proposed supervisory staff, including qualifications for specialized expertise or any certification(s) required to perform the Work.
 - (iii) Names of proposed sub-contractors and a listing of the related trade of work and value.
 - (iv) Any special coordination requirements with other trades.
 - (v) Any special storage and staging requirements for construction materials.

14.0 Owner-Contractor Agreement: An example Contract to be used is included with the bid documents

15.0 Final Payment & Maintenance Bond: Upon authorization and certification of the final payment by the Owner, the Owner shall pay the Contractor the amount of said estimate which shall be the balance due the Contractor, including the retained percentage, such sums as may be retained lawfully by the Owner except provided, the nothing herein contained shall be construed to affect the right hereby reserved by the Owner to reject the whole or any portion of the work should the final estimate and acceptance of such payment by the Contractor, shall release the Owner from all claims and liabilities to the Contractor with his contract.

Prior to authorization of the final payment by the Owner, and prior to the receipt by the Contractor of his final payment, the Contractor shall furnish to the Owner a maintenance bond in the amount of 100% of the total compensation earned by the Contractor in connection with the work. The bond shall be in a form acceptable to the Owner and with a surety company acceptable to the Owner. It shall remain in effect for two years after the date of authorization of the final payment by the Owner.

END OF SECTION 002113

Section
No.

FORMS TO BE SUBMITTED WITH BID
(Submit All Forms With Bid In The Order They Are Listed Below)

004116	Bid Form	<input type="checkbox"/>
004390	Surety's Consent	<input type="checkbox"/>
004394	Bidder's Personnel	<input type="checkbox"/>
004503	Insurance Certification Form	<input type="checkbox"/>
006101	Bid Bond	<input type="checkbox"/>

NOTES:

1. CONTRACTOR MUST SUPPLY A STREET ADDRESS. POST OFFICE BOX NUMBER IS NOT ACCEPTABLE.
2. ALL PROPOSAL FORMS, CONTRACT DOCUMENTS, ETC. MUST BE COMPLETED AND SIGNED IN BLACK INK ONLY.
3. PLEASE PRINT THE NAME OF ALL SIGNATORY PARTIES UNDER THE SIGNATURE: SPELL OUT NAME IN FULL.

SECTION 004116 – BID FORM

To: Sonny Patel Brewing Company, inc.
590 Route 211
Middletown, NY 10941

Project: Aspire Brewing – Proposed Tap Room & Brewery

Date: _____

Submitted by: _____
(full name
and address) _____

Telephone No. _____

1.1 OFFER

Having examined the Place of The Work and having familiarized himself with the local conditions and any other conditions affecting the Construction Work of this Project, including the availability of materials and labor, and fully understanding the requirements of the Bidding and Contract Documents for the above mentioned Project, the Undersigned Contractor hereby offers to furnish all labor, supervision, materials, tools, equipment, transportation, and services necessary to perform and complete the Construction Work of the Project in strict accordance with the Contract Documents within the time limit, and that if this Bid is accepted, the Undersigned agrees to enter into the Contract with the Owner to perform and complete this Work for the Sum of:

BASE BID (includes allowances per Section 012100)

\$ _____
(figures)

_____ dollars,
(written)

in lawful money of the United States of America.

We have included the Security Bid Bond as required by the instruction to Bidders.

**Bidder shall submit their bid breakdown by CSI division as an attachment.
Failure to do so will result in a rejected bid.**

1.2 UNIT PRICES – None

1.3 ALLOWANCES

The Bidder hereby certifies that the Base Bid includes the following a contingency allowance as stipulated in the Specifications.

SECTION 004116 – BID FORM

- a. Allowance 1: Contractor shall include a contingency allowance of \$500,000.00 for use according to the Owner's Instructions.**

1.4 ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for forty-five (45) calendar days from the Bid closing date. Contract Award shall be determined by the Lowest Responsible Base Bid plus any combination of Alternates at the discretion of the Owner.

If this Bid is accepted by the Owner within the time period stated above, we will

- Execute the Agreement within seven (7) days of receipt of Notice to Proceed.
- Furnish the required bonds within seven (7) days of receipt of Notice to Proceed in the form described in Contract Documents.
- Commence Work within seven (7) days after written Notice to Proceed.

If this Bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required bonds, the Bid security shall be forfeited as damages to the Owner by reason of our failure, limited in amount to the lesser of the face value of the Bid security or the difference between this Bid and the Bid upon which a Contract is signed.

In the event our Bid is not accepted within the time stated above, the required security deposit will be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders, unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

The sum given in the Base Bid represents the entire cost of the Electrical Construction Work of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for State and Local sales taxes on any materials which it purchases for this Project.

The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this Bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of Bids.

The Undersigned has examined the location of the proposed Electrical Construction Work, Drawings, Specifications and other Contract Documents and is familiar with local conditions at the place where said Work is to be performed, including, without limitation, the Center for Disease Control (CDC) guidelines, NYS Governor's Executive Order 202.34, NYS Interim Guidance for Construction Activities during the COVID-19 Public Health Emergency and any other federal, state or local requirements and guidelines related to the COVID-19 pandemic. Refer to the General Conditions of the Contract for Construction for additional requirements.

1.5 CONTRACT TIME

If this Bid is accepted, we will

SECTION 004116 – BID FORM

- Substantially Complete the Work as noted in Milestone Schedule 011100. Final Completion shall be within Thirty (30) days from Substantial Completion.

1.6 ADDENDA

The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the bid sum.

Addendum #1 Dated _____

Addendum #2 Dated _____

Addendum #3 Dated _____

Addendum #4 Dated _____

1.7 BID FORM SIGNATURES

The Corporate Seal of

(Bidder – print the full name of your firm)

was hereunto affixed in the presence of:

(Authorized signing officer Title)
(Seal)

(Authorized signing officer Title)
(Seal)

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION 004116

SURETY'S CONSENT

ASPIRE BREWING

KNOW ALL MEN BY THESE PRESENTS, that _____ a Corporation of the State of _____ having its principal office at _____ and _____ a Company/ Corporation in the State of _____ having its principal office at _____ being (a) surety company (is) qualified to do business in the State of New York in consideration of the premises and of One Dollar to it (them) in hand paid by the Owner, and of other good and valuable considerations, the receipt thereof is hereby acknowledged, do (as) consent and agree, that if the contract for which the preceding bid or proposal is made be awarded to the person or persons making the security, for the full and faithful performance of said work, and, for the protection of all persons performing or furnishing labor or materials for the performance of said contract in the form required; the performance bond and the labor and material obligations to be in an amount equal to 100% of the contract price, and to be conditioned so as to indemnify the Owner against loss due to the failure of the Contractor to meet the stipulations of said bond; and if the said person or persons shall omit or refuse to execute such contract and give the proper security within ten (10) days after written notice that same is ready for execution, if so awarded, and if sum, which the Owner may be obliged to pay to the person or persons by whom the contract shall be finally executed, exceeds the sum to which the person or persons making this bid or proposal would be entitled, then, the said surety company or companies will pay, without proof of notice or demand, to the Owner the amount of any such excess; the sums in each case to be calculated upon the estimated quantities of work, labor and materials by which the bids are tested.

Surety

Contractor

Surety

As To Surety

By Attorney

SECTION 004503 – INSURANCE CERTIFICATION FORM

Your insurance representative must complete the form below in order to be considered for the award of this bid or project, and it is important that you complete the Bidder’s Acknowledgement section of this form. Please note that this Insurance Certification form must accompany your bid submission in order for your bid to be considered.

Each bid will include a copy of the Insurance Certification Form located in the specification in their bid packet. Failure to provide may result in the Owner finding the bidder “non-responsive” to the bid documents.

Insurance Representative’s Acknowledgement:

We have reviewed the insurance requirements set forth in the Article 11 of the General Conditions of the Contract for Construction (A201-2017) and stipulated in the General Requirements (010000) located in the specifications, and we are capable of providing such insurance to our insured in accordance with such requirements in the event the contract is awarded to our insured and provided our insured pays the appropriate premium.

Insurance Representative:

Address:

Are you an agent for the companies providing the coverage? Yes _____ No _____

Date: _____

Insurance Representative Signature

Bidder’s Acknowledgement:

I acknowledge that I have received the insurance requirements of this bid and have considered the costs, if any, of procuring the required insurance and will be able to supply the insurance required in accordance with the bid, if it is awarded. I understand that this Insurance Certification form must be submitted with my bid and my inability to provide the required insurances may result in the rejection of my bid and Aspire Brewing may award the contract to the next lowest/responsive bidder.

Firm name:

Address:

Date: _____

Bidder’s Signature

 **AIA[®] Document A101[™] – 2017****Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum**

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

The Architect:
(Name, legal status, address and other information)

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101[™]–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201[™]–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

Init.

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TABLE OF ARTICLES

1	THE CONTRACT DOCUMENTS
2	THE WORK OF THIS CONTRACT
3	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
4	CONTRACT SUM
5	PAYMENTS
6	DISPUTE RESOLUTION
7	TERMINATION OR SUSPENSION
8	MISCELLANEOUS PROVISIONS
9	ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

[] Not later than () calendar days from the date of commencement of the Work.

[] By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work

Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item

Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. *(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)*

Item

Price

Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item

Price

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item

Units and Limitations

Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner’s prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
(Insert rate of interest agreed upon, if any.)

%

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- Litigation in a court of competent jurisdiction
- Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

(Name, address, email address, and other information)

§ 8.3 The Contractor’s representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number	Title	Date
--------	-------	------

.6 Specifications

Section	Title	Date	Pages
---------	-------	------	-------

.7 Addenda, if any:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

Init.

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[] AIA Document E204™-2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

[] The Sustainability Plan:

Title	Date	Pages
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[] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
----------	-------	------	-------

.9 Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

(Printed name and title)

CONTRACTOR (Signature)

(Printed name and title)

Additions and Deletions Report for **AIA[®] Document A101[™] – 2017**

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 14:29:26 on 06/28/2018.

There are no differences.

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 14:29:26 on 06/28/2018 under Order No. 2513716516 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A101™ – 2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

SECTION 006100 – BOND REQUIREMENTS
See the conditions set forth in Article 11 of the General Conditions

- 1.01 Prior to Owner signing the contract agreement, he will require the Contractor(s) to furnish separate performance and labor and material payment bonds covering the faithful performance of the entire construction contract agreement.

The performance bond and the labor and material payment bond shall each be made out in one hundred percent (100%) of the guaranteed maximum contract amount.

- 1.02 The Contractor (s) shall include in his proposal amount the total premiums for the performance and labor and material payment bonds.



AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

BOND AMOUNT: \$**PROJECT:**

(Name, location or address, and Project number, if any)

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

Init.

Additions and Deletions Report for **AIA® Document A310™ – 2010**

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

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There are no differences.

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, _____, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 15:07:52 ET on 03/05/2019 under Order No. 2513716516 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A310™ – 2010, Bid Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

SECTION 006300 – REQUESTS FOR INFORMATION (RFI)

PART 1 - GENERAL

- 1.01 This document is for issuance at the Post Bid/Pre-Construction Conference and specifies administrative and procedural requirements for handling requests for information (RFI's) made after award of Contract.
- 1.02 Attention is directed to Sections 013200 and 013300 of Division #1 as same concerns construction progress schedules, submittals of shop drawings, samples and product data in general.
- 1.03 SUBMITTALS PROCEDURES: RFI's shall be submitted in the following manner:
- A. One (1) completed copy of form following to Architect with copies to Owner (as directed) and appropriate Consultants with the following minimum information:
1. Work identified by RFI listing affected Drawing(s) and specific detail(s) and Specification paragraph reference(s).
 2. Identify specific field conditions and "as-built" conditions on sketches attached to RFI submittal.
 3. If RFI addresses conflict(s) in, or between Contract Documents, describe completely and provide such data necessary to permit thorough and proper response by affected discipline.
 4. Indicate proposed solution along with any impacts on cost and construction time.
 5. Listing of Trade/Specialty Contractors affected by RFI and indication that RFI proposal has been coordinated with said contractors.

INCOMPLETE RFI'S WILL BE RETURNED TO CONTRACTOR WITHOUT ACTION TAKEN.

1.04 REVIEW PROCEDURES/ACTIONS

- A. Architect/Engineer may request additional information or documentation as may be deemed necessary for fair evaluation of RFI.
- B. Architect/Engineer will respond with reasonable promptness as outlined in Section 013300 in writing and may, if deemed appropriate issue a "Bulletin" (as defined in the General Conditions) as a clarification to the Contract Documents.

END OF SECTION 006300

DRAFT AIA® Document G716™ - 2004

Request for Information ("RFI")

TO:	FROM:	
PROJECT:	ISSUE DATE:	RFI No. 001
PROJECT NUMBERS: /	REQUESTED REPLY DATE:	
	COPIES TO:	

RFI DESCRIPTION: *(Fully describe the question or type of information requested.)*

REFERENCES/ATTACHMENTS: *(List specific documents researched when seeking the information requested.)*

SPECIFICATIONS: DRAWINGS: OTHER:

SENDER'S RECOMMENDATION: *(If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)*

RECEIVER'S REPLY: *(Provide answer to RFI, including cost and/or schedule considerations.)*

BY _____	DATE _____	COPIES TO _____
----------	------------	-----------------

Note: This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

 **AIA** Document A201™ – 2017**General Conditions of the Contract for Construction**

for the following PROJECT:
(Name and location or address)

THE OWNER:
(Name, legal status and address)

THE ARCHITECT:
(Name, legal status and address)

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- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

Init.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent

consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements,

assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's 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, 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.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

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§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. 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, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the

Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the

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Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations

and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor,

prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work,

promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

Init.

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will

affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and

unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 **Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to

the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance,

the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the 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 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the

Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

Additions and Deletions Report for **AIA® Document A201™ – 2017**

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 09:25:36 on 01/25/2018.



Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, Michael J. McGovern, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 09:25:36 on 01/25/2018 under Order No. 2925492671 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A201™ - 2017, General Conditions of the Contract for Construction, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

SECTION 010000 – GENERAL REQUIREMENTS

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1.1 Summary of Work: Definitions: The word "provide" means furnish and install complete. The word "Contractor" means the proper trade referred by its reference.

The contractor is referred to the "Instructions to Bidders", "Bid Form", "Form of Bid Bond", "Form of Contract", "General Conditions", "Supplementary General Conditions", "Contract Drawings", and any "Amendments" to any foregoing, all of which are hereby made part of this contract.

1.2 Submittals: A milestone schedule shall be submitted to the Architect by the Contractor prior to initiation of work and shall be adhered to at all times. Any deviation from the milestone schedule shall be brought to the immediate attention of the Architect and Owner.

Before work is started, the Contractor shall submit to the Architect for approval a list of materials, with trade names, proposed to be furnished (4 copies) and shop drawings as requested by the Architect. Submittals shall be representative of materials to be used by the Contractor in completing his work.

1.3 Progress Payments: Prior to the start of work, the Contractor shall submit a complete payment breakdown to the Architect. Payments will be made by the Owner in accordance with Article 9 of the contract form. The Contractor shall submit applications for payment of vouchers on the forms prescribed

and approved by the Owner. These applications shall be submitted to the Architect for approval before final payment by the Owner.

1.4 Materials Handling:

1.4.1 Delivery: The Contractor shall be responsible for all materials being delivered in manufacturer's original unopened containers with manufacturer's labels intact and legible.

1.4.2 Storage: Storage space for materials and equipment is considered limited and the Contractor will schedule deliveries to minimize space required for storage.

The Contractor shall place and store materials and equipment in spaces agreed upon by the Owner, Architect, and Contractor. The contractor shall provide continuous protection against damage or loss.

1.4.3 Waste Materials: All waste materials shall be stored and removed from the site in a manner agreed upon by the Contractor, the Owner, and the Architect daily. In the event material and debris are left at the site and not removed in accordance with the specifications, the Owner may remove the offending materials at the Contractor's expense.

1.4.4 Use of Site: The Contractor's use of the premises is restricted to the areas involved in the work.

Telephone facilities of the Owner are not at the disposal of the construction personnel. The Owner is not responsible for any materials, tools, or equipment of the Contractor. All streets and all drive areas throughout and adjacent to the property must be kept free of obstructions.

1.4.5 Safety: All work shall be performed with the safety of the building occupants, students, and staff taken into consideration.

1.5 Special Conditions:

1.5.1 Visit to Site: The Contractor shall examine the drawings and specifications; must visit the site and note all field conditions which will influence the work required by his contract. The Contractor must verify the data noted in the drawings and specifications. The Contractor shall report any discrepancies between the bid documents and the field conditions to the Architect no later than five (5) days before the bids are due so that the Architect may issue clarification addenda if required. Failure to report any discrepancies within the time frame noted, will nullify any extra cost claim by the Contractor, if claim is based on discrepancies between specifications, drawings, and field conditions.

1.5.2 Protection: Contractor shall be responsible for the existing building, new work, new facilities, and improvements within the area where his work is being accomplished. Any damage to these resulting directly or indirectly from the Contractor's operations shall be promptly corrected at the Contractor's expense.

Provide all necessary temporary enclosures, covers, guardrails, barricades, safety devices, etc., to adequately protect all workmen and the public, especially children, from possible injury due to the various processes required to accomplish the work required. Provide all necessary temporary partitions, enclosures, and coverings for the confinement of dust, dirt, and debris.

Temporarily protect partially completed construction items such as structural steel, roof deck, roofing, insulation, exposed wall cavities, interior walls, etc., as needed to protect against weather damage.

1.5.2.1 The Contractor is responsible for maintaining all temporary emergency egress routes. The Contractor shall obtain approval from the Building and Fire Departments for all temporary emergency egress routes.

1.5.3 Security and Safety: The Contractor shall maintain adequate security at all times to protect the materials and work in place from damage, theft, malicious mischief and vandalism. The Contractor shall also observe and comply with all codes and regulations applicable to the safety of employees, tenants, and the general public. The Contractor, specifically, shall meet all requirements of OSHA as published in the Federal Register and procurable from the Government Printing Office, and the New York Department of Labor Safety Regulations as related to the construction work.

1.5.4 Supervision: All work specified herein shall be carried out under the direction of the Architect and with the approval of the coordinator of building services of the Owner with the least interference with the routine use of the building. All materials, equipment, etc., shall be stored where and as directed.

1.5.5 Installation: The complete installation shall be in accordance with the latest rules and regulations of the Authority's having jurisdiction.

Any item or requirement necessary for a complete installation but not specifically described in this specification shall conform to the governing rules and regulations.

The Contractor shall procure all the necessary and usual certificates for all work installed and deliver same to the Architect before final acceptance.

The Contractor is responsible for all rigging, scaffolding, and hoisting that is required in order to install the equipment as specified.

1.5.6 Existing Work: Existing work shall be cut, drilled, altered, removed or temporarily removed and replaced as necessary for the performance of the contract. However, unless otherwise provided by the specifications, no structural members shall be cut or altered without the authorization of the Architect. Work remaining in place which is damaged or defaced by reason of work as done under this contract, shall be restored equal to its condition at the time of the award of this contract.

1.5.7 Existing Equipment: Equipment temporarily removed as a result of work under this contract shall be protected, cleaned, and replaced equal to its condition at the time of the award of this contract.

1.6 Coordination: There are no limitations to the working hours, but all work shall be coordinated with the Owner.

The Contractor shall not interfere with the operation of existing essential services during all normal operating hours and periods. All work requiring temporary interruption of essential services shall be done only with the specific approval of the Owner. The Contractor shall set up a schedule of work affecting existing services for approval by the Owner.

Contractor shall give 24 hours-notice to the Owner for those areas where access would be required the next working day.

1.7 As-Builts: The Contractor (each prime contractor), upon completion of installation of work, shall provide the Owner with as-built drawings (3 copies) to be approved by the Design Architect or Architect. These drawings shall show the exact location and invert of all items installed and/or altered by the Contractor.

1.8 Time of Completion: The Contractor, prior to being awarded the contract, shall prepare and submit for the Architect's and Owner's approval, a progress schedule for the work. The progress schedule shall be related to the entire project to the extent required by the contract documents. This schedule shall indicate the dates from the start of work to completion and shall be revised as required by the conditions of the work subject to the Architect's approval. Any departure from the schedule shall be brought to the attention of the Architect.

The Contractor in preparing his schedule shall comply with the requirements on Table 1-1 which lists the completion date from the contract award date.

Any objections by a prospective bidder to this time schedule shall be indicated on the bid form with submittal of bid and notify Architect in writing ten (10) calendar days before the bid.

1.9 Liquidated Damages: The Contractor agrees that, from the compensation otherwise to be paid, the Owner will assess liquidated damages in the amount indicated on Table 1-1 for each calendar day thereafter that the work included under his contract remains uncompleted after calendar occupancy day specified under Time of Completion which sum is agreed upon as the proper proportionate measure of liquidated damages which the Owner will sustain per diem, by failure of the Contractor to progress or complete his work under his contract at the time stipulated, and the sum is not to be construed as in any sense a penalty.

The above liquidated damages shall be interpreted as partial reimbursement to the Owner resulting from costs of legal fees and the cost of additional architectural/Architect services, and other expenses of the Owner because of non-compliance by original dates but shall not be considered as including costs of legal fees and the cost of additional services in connection with claims, arbitration, litigation, default, or insolvency of the Contractor.

1.10 Insurance: Contractors are required to carry at least \$1,000,000 liability and umbrella protection up to \$5,000,000 and Workers' compensation coverage with statutory limits. The certificate of insurance should include additional insured wording on a primary and non-contributory basis with a waiver of subrogation. Refer to the Sample COI following this section.

1.11 Substitutes/Equivalents: Where two or more kinds, types, brands, manufacturers, or materials are named in these specifications, they are to be regarded as the required standard of quality and are presumed to be equal. The contractor may select one of these items or, if the contractor desires to use any kind, type, brand, manufacturer, or materials other than those named in the specifications, the contractor shall indicate in writing, when requested, and prior to the award of contract, what kind, type, brand, manufacturer or material is included in the base bid for the specified item.

1. Bidder must prove equivalence of substitution and furnish detailed specifications and catalog cuts or drawings. Failure to identify exceptions or deviations from equipment specified must be interpreted to indicate that the product offered complies with the specification in every respect.
2. Please refer to Article 6 of the General Conditions for additional information on equivalents and substitutions.

1.12 Reserved

1.13 Communications: Should there be any problems with the contract in terms of working conditions, cooperation of the owner personnel, tenants, vandalism, job safety, stolen equipment and materials, unusual field conditions; the Contractor will immediately notify the Owner in writing for resolution.

1.14 Protection:

1. Provide all required protective measures for removal work. Give particular attention to the protection requirements so as to prevent any damage to existing construction or to adjoining public and private property, including thoroughfares. The Contractor will be

held responsible and shall restore at his own expense any such damage to the complete satisfaction of the Architect.

2. Protect adjoining public and private property, including thoroughfares, from damage due to disposal operations.
3. Protect from damage all heating, plumbing, and electrical lines to remain.
4. Take extreme care to protect the occupants of adjoining areas and prevent any harm to them through the required operations.

1.15 Indemnity:

1. The Contractor agrees to indemnify and save the Owner and Architect and their authorized representatives, harmless from and against any and all costs, loss, expenses, liability, damages, including cost of defending any action on account of any injury or damage to the buildings, improvements or property of any person, firm, corporation, or association and on account of any injury (including death) to any person or persons arising or resulting from the work provided for or performed under the specifications, or from any act, omission, or negligence of the contractor, sub-contractors, and his or their agents or employees. The foregoing provisions shall not be deemed to be released, waived or modified in any respect by reason of any surety or insurance provided by the contractor under this contract.

1.16 Removal and Disposal of Debris:

1. The contractor is responsible for removal from the building and off site disposal of all rubble, trash, combustible materials and debris of all kinds created by and in the construction of this project. This includes all debris created by or connected with the operations of all contractors, sub-contractors and material suppliers engaged in the construction.
2. The contractor shall pay all costs, fees, and permits attendant to the loading, unloading, cartage, dumping and disposal of all rubbish, and/or debris. No other contractor, sub-contractor, or material supply man shall be obliged to pay any costs attendant to this operation. The complete removal of all debris shall be performed with such frequency as to maintain the grounds around the building free from debris. Materials and debris removed will be loaded directly into waiting trucks or containerized vehicles so as not to litter the adjacent grounds.
3. In addition, the building and grounds will be maintained in a clean and orderly manner so as to conform with all local fire safety regulations and in accordance with the latest editions of the Safety Code of the National and State Board of Fire Underwriters.
4. Areas designated by Owner will be the only place the contractor will be allowed to load and off load usable materials and/or debris. He shall at no time block the fire exists of the building. He will further repair any damage done to the sidewalks, pavements, and lawn areas upon completion of the project.

1.17 Ingress, Egress, and Circulation: The contractor shall be responsible for performing his construction activities in such manner to maintain essential ingress and egress for visitors and occupants of Owner-occupied areas and to continuously maintain all required emergency exits from and circulation between existing facilities. Passageways for emergency exits shall be kept continuously free from debris,

construction equipment, tools, stockpiles of materials, and other hazards to speedy evacuation. The contractor shall provide all necessary temporary work as prudence and good practice may dictate and in accordance with Public Law, to obtain and maintain all such ingress, egress, and circulation requirements. All temporary work shall be removed when no longer required.

1.18 Non-Interference with Owner's Operations: The contractor shall acquaint himself with the general character of the Owner's operations prior to commencing work and shall so schedule his work to avoid interference therewith. The sequence of demolition and removal operations shall be in accordance with a schedule of contract operations approved by the Owner.

1.19 Sequence of Work:

1. An approved Sequence of Work will be established for the work of this project that will not interfere with the Owner's operations. The Sequence of Work may be modified from time to time by the Owner if changes in his schedule of activities require it.
2. The Owner will occupy the existing building and the outdoor facilities during normal business hours and also for after hours activities.
3. Emergency exit ways shall be kept clear at all times that people are in the building.

1.20 Final Cleaning Up:

1. Just prior to the Architect's inspection to establish the date of Substantial Completion, Contractor shall do final cleaning of materials and equipment installed under the contract.
2. The Contractor shall restore the areas of the building or the site, damaged by his work, to its original condition.
3. Contractor shall be responsible for the proper cleaning of all equipment furnished under this contract and for the removal of rubbish, packing cases and debris.

1.21 Storage: Storage space for materials and equipment is considered limited and the Contractor will schedule deliveries to minimize space required for storage.

The Contractor shall place and store materials and equipment in spaces agreed upon by the Owner, Architect, and Contractor. The Contractor shall provide continuous protection against damage or loss.

1.22 Visit to Site: The contractor shall examine the drawings and specifications, must visit the site and note all field conditions which may influence the work required by his contract. Each prime contractor must verify the data noted in the drawings and specifications. He shall report any discrepancies between the bid documents and field conditions to the Architect no later than ten (10) days before bids are due so that the Architect may issue clarification addenda if required. Failure to report any discrepancies within the time frame noted, will nullify any extra cost claim by the Contractor, if claim is based on discrepancies between specifications, drawings, and field conditions.

1.23 Architect's Inspections: The Contractor shall accommodate Architect's inspections by providing manpower, equipment, etc. as required by the inspector. Assist the inspector as requested.

1.24 Contract Location:

Aspire Brewing
400 North Galleria Drive
Middletown, NY 10941

1.25 Installation: The complete installation shall be in accordance with the latest rules and regulations of the Boards and Departments having jurisdiction.

Any item or requirement necessary for a complete installation but not specifically described in this specification shall conform to the governing rules and regulations.

The contractor shall procure all the necessary and usual certificates for all work installed by him and deliver same to the Architect before final acceptance.

The contractor is responsible for all rigging, scaffolding, and hoisting that is required in order to install the equipment as specified.

1.26 Code Requirements: All work performed, and materials furnished, shall be done in strict accordance with current requirements of the State and local codes as may apply including all revisions and authorized standards to date. The following is a partial list of applicable codes:

1. Building Code of New York State;
2. Building Code of New York State, Chapter 27 - Electrical;
3. Fuel Gas Code of New York State;
4. Building Code of New York State, Chapter 28 - Mechanical;
5. Building Code of New York State, Chapter 29 - Plumbing;
6. Fire Prevention Code of the State of New York;
7. Energy Conservation Code of New York State;
8. Safety Code for Elevators & Escalators - ASME A17.1: Building Code of New York State, Chapter 30;
9. ICC/ANSI A117.1 1998;
10. Life Safety Code - NFPA 101 - 2000;

1.27 Permits and Inspections: The contractor shall obtain and pay for any necessary Municipal or State inspection and permit as required by the inspection authority, and make such tests as are called for by the regulations of such authorities. These tests shall be made in the presence of such authorities or their authorized representative.

1.28 Shop Drawings, Product Data, and Samples:

1. Work Included:

- a. Submit to Architect, all shop drawings, product data, and samples as required by these specification sections.
- b. Designate construction schedule dates for submission, and dates shop drawings reviewed, product data and samples will be needed for each product.
- c. Contractor must stamp all submittals with "approval stamp" before submitting to the Architect/Architect.

2. Shop Drawings:

- a. Original drawings prepared by Contractor, Sub-Contractor, supplier or distributor, which show some portion of the work, showing fabrication, layout, setting, or erection of details.
 - b. Prepared by qualified details.
 - c. Identify details by reference.
 - d. Reproduction of submittals to be opaque diazo prints or blueprints.
3. Product Data:
- a. Manufacturer's Standard Schematic Drawings:
 - 1. Modify drawings to delete information which is not applicable to the project.
 - 2. Supplement standard information to provide additional information applicable to project.
 - b. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
 - 1. Clearly mark each copy to identify pertinent materials, products or models.
 - 2. Mark each item with the appropriate specification reference.
 - 3. Show dimensions and clearances required.
 - 4. Show performance characteristics and capacities.
 - 5. Show wiring diagrams and controls.
 - 6. Indicate any deviations for characteristics specified clearly.
4. Samples:
- a. Where called for in specifications or required by Architect provide physical examples to illustrate materials, equipment or workmanship and to establish standards by which completed work is judged.
 - b. Provide office samples of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of products or material with integrally related parts and attachment devices.
 - 2. Full range of color samples.
 - 3. After review samples may be used in construction of the project.
 - c. Clearly identify each sample with appropriate specification reference and clearly indicate any deviation from specification.
5. Contractor's Responsibilities:
- a. Review shop drawings, product data, and samples prior to submission, make certain that items conform to specifications and requirements of work, and so certify when submitting items for approval.
 - b. Verify:
 - 1. Field measurements;

2. Field construction criteria;
 3. Catalog numbers and similar data.
- c. Coordinate each submittal with requirements of work and of contract documents.
 - d. Contractor's responsibility for errors and omissions in submittals is not relieved by Architect's review of the submittals.
 - e. Contractor's responsibility for deviations in submittals from requirements of contract documents is not relieved by Architect's review of submittals, unless Architect deviations are identified by contract at time of submission.
 - f. Notify Architect, in writing, at the time of submissions or deviations in submittals from requirements of contract documents.
 - g. Begin no work which requires submittals until return of submittals with Architect's stamp and initials or signature indicating review.
 - h. After Architect's review distribute copies, as needed.
6. Submission Requirements:
- a. Submittal schedule for shop drawings, product data, and samples shown:
 1. Date of Contractor's submittals;
 2. Date of Contractor's resubmittals;
 3. Date of approval;
 4. Date of release of work or purchase order.
 - b. Schedule submissions at least fifteen (15) days before dates reviewed submittals will be needed.
 - c. Submit number of copies of shop drawings and product data samples which Contractor requires for distribution and manuals, three (3) copies which will be retained by Architect and two (2) copies for owner.
 - d. Submit number of samples specified in each of these specification sections.
 - e. Accompany submittals with transmittal letter in duplicate, containing:
 1. Date;
 2. Project title and number, and contract number;
 3. Contractor's name and address;
 4. Number of each shop drawing, product data, and sample; and quantity of drawings submitted;
 5. Notification of deviations from contract documents;
 6. Other pertinent data.
 - f. Submittals shall include:
 1. Data and revision dates;
 2. Project title and number;
 3. The names of:
 - a. Architect
 - b. Contractor
 - c. Subcontractor
 - d. Supplier

- e. Manufacturer
- f. Separate details, when pertinent.
- 4. Identification of product or material;
- 5. Relation to adjacent structure or materials;
- 6. Field dimensions, clearly identified as such;
- 7. Specification section numbers;
- 8. Applicable standards, such as ASTM number or Federal Specification;
- 9. Identification of deviation from contract documents;
- 10. Contractor's stamp, initialed or signed, certifying to review of submittal; verification of field measurements and compliance with contract documents.

7. Architect's Review:

- a. Architect will review and stamp submitted shop drawings and other submissions in one (1) of the following ways:
 - 1. "NO EXCEPTIONS TAKEN": Submission is in full compliance with all contract documents, or indicated deviations are acceptable.
 - 2. "MAKE CORRECTIONS NOTED": Submission has minor corrections not significant enough to require resubmission; noted corrections must be made in the final installation.
 - 3. "REJECTED": Submission does not meet contract requirements; resubmission of shop drawings, which meet contract requirements, is required.
 - 4. "AMEND AND RESUBMIT": Resubmission is required due to the nature and/or number of corrections.
- b. Work shall be executed in accordance with "No Exception Taken" or "Make Corrections Noted" drawings only.
- c. Architect's approval is for conformity to design requirements and arrangement only. Contractor is responsible for quantity, dimension, accuracy of fit, and coordination with other trades. Approval is subject to all contract requirements and does not authorize any changes involving additional costs, unless stated in a separate letter or change order.

8. Resubmission Requirements:

- a. Shop Drawings:
 - 1. Revise initial drawings, as required, and resubmit, as specified to initial submittal;
 - 2. Indicate on drawings any changes which have been made, other than those requested by Architect;
 - 3. Submit new product data and samples, as required on initial submission.

9. Distribution of Submittals After Review:

- a. Distribute copies of shop drawings and product data which carry Architect's stamp to:
 - 1. Contractor's File;
 - 2. Job Site File;
 - 3. Record Document File;
 - 4. Sub-Contractors;

5. Supplier;
 6. Fabricator.
- b. Distribute samples as directed; remove from site if so placed, or incorporated in finished work when permitted by Architect.

1.29 Schedule of Values:

1. Work Included:

- a. Submit to Architect the Schedule of Values, within seven (7) days after award of contract.
- b. Upon request of Architect, support values given with data that will substantiate their correctness.
- c. List quantities of materials specified under unit price allowances.
- d. Payment for materials stored on site will be limited to those materials listed in Schedule of Unit Material Values.
- e. Use Schedule of Values only as basis for Contractor's Application for Payment.

2. Submittals:

- a. Form and Content:
 1. Submit typewritten Schedule of Values on AIA G702a.
 2. Use Table of Contents of these specifications as basis for format of listing costs of work for sections under divisions applicable to contract.
 3. Identify each line item with section number and title, as listed in Table of Contents of these specifications.

3. Preparation:

- a. Itemize separate line item cost for each of the following general cost items:
 1. Insurance bonds;
 2. Field supervision and layout;
 3. Temporary facilities and controls;
 4. Mobilization;
 5. Performance testing (not less than 10% of value of equipment/system being tested);
 6. Allowances.
- b. Payment for field supervision, layout, temporary facilities, and controls will be made monthly as a percentage of project completion corresponding directly to the percent of total dollar value of the work owed (does not include retainage).
- c. Itemize separate line item cost for work required by each section of these specifications.

- d. Provide line item for each major component of work for which contractor will require partial payment or where so requested by the Architect.

4. Review and Submittal:

- a. After review by Architect and Owner, revise and resubmit schedule, as required.
- b. Schedule of Value(s) which are "front-loaded" will be rejected.

1.30 Project Coordination: Wherever the term, " Contractor" is used herein, it is intended to mean either the Contractor for the whenever separate prime contracts are involved, or the Sole Contractor if there are no other prime contractors engaged on the project.

Wherever separate contracts are awarded to separate Prime Contractors for the different branches of the work or where there is a single Prime Contractor, the Contractor for the (hereinafter referred to as the Contractor) has the responsibility for being the supervisor, manager, overseer, coordinator, and expediter of all the contractors and of the total construction process and all of its parts, in accordance with the contract. In executing the duties assumed by these responsibilities, the Contractor shall provide sufficient executive and supervisory staff in the field to accomplish efficient and expeditious handling of these matters. There shall be at least one (1) full-time Project Manager assigned by the Contractor, as well as the field staff referred to above; The Project Manager shall attend each Progress Meeting at the site.

Contractor shall afford the Owner and others reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work. Contractors shall coordinate their work with other trades, so that no portion of the work is delayed or not properly undertaken due to such lack or failure of cooperation.

Contractors shall lay out and install their work at such time or times and in such manner as to facilitate the general progress of the project.

1.30.1 Items noted NIC (Not in Contract), will be supplied and installed by Owner

1.30.1.1 For Owner installed products, the Owner's responsibilities are as follows:

1. Provide reviewed shop drawings, product data, and samples, to the Contractor responsible for installation or coordination.
2. Provide product delivery to the site.
3. Arrange for manufacturers' warranties, inspections, and service.
4. Arrange for product installation.

1.30.1.2 For Owner installed products, the Contractor's responsibilities are as follows:

1. Review Owner provided shop drawings, product data, and samples for coordination purposes.
2. Receive and install product, if required by the Project Documents.
3. Notify the Owner of any discrepancies between the Contract Documents and the product which is to be provided.

1.31 Cut-Overs, Interruptions to Existing Buildings: All cut-overs of mechanical and electrical services to existing buildings shall be scheduled and coordinated in advance with the A/E and done at a time convenient to the Board of Education so as not to unreasonably interfere with its operations.

1.32 Control Wiring: The Contractor who furnishes and installs mechanical equipment, including but not limited to heating, ventilating, and air conditioning systems; ATC systems; boilers, remote monitoring systems; and so forth, which systems require electrical control wiring, shall include the cost of all such control wiring and its installation in his proposal.

Control wiring must connect to a point of electrical power supply as shown in the contract documents. (Power wiring and supply shall be provided by the Electrical Contractor.)

1.33 Openings, Channels, Cutting and Patching: The contractor shall be responsible for furnishing an setting of sleeves, built-in items, anchors, inserts, etc. for his work and for all cutting, fitting closing in, patching, finishing, or adjusting of his work in new and/or existing construction, as required for the complete installation. Where applicable, the Contractor shall build these items into the construction.

The Contractor shall build recesses, channels, chases, openings, flues, and ducts, or any other feature of the heating and ventilating work. The General Contractor shall provide openings for all louvers. Openings in masonry walls shall have lintels provided and installed by the General Contractor. All contractors requiring recesses, channels, chases, openings, etc. shall furnish to the Contractor, through the A/E, complete detailed drawings for all chases, openings required in connection with some work in ample time to allow the construction work to proceed without interruption or delay. At least three copies shall be furnished to the A/E.

The Contractor shall close, build in, and furnish around or over all openings, chases, channels, pockets, etc. after installation has been completed. Should a contractor fail to furnish the above required information in time, he shall, at his own expense, arrange for all cutting, rebuilding, patching and furnishing, but shall employ the Contractor for the work.

Approval in writing must first be obtained by the contractor from the A/E before cutting or boring through a floor beam, floor construction or sorting members.

Repair of Cracks: The General Contractor accepts sole responsibility for repair of uncontrolled dislodgment, cracking, delamination, and peeling of finished surfaces such as concrete, precast concrete, cast and natural stone, until masonry millwork, plaster, glass and applied finishes such as paint, and special coatings, within the contract scope and the limits of specified guarantee periods, regardless of the cause.

The Contractor shall be responsible for replacement of all broken glass installed by him or his subcontractors, after same has been installed, no matter by whom or what cause, and shall replace all broken, scratched, or otherwise damaged glass before the completion and acceptance of the work. He shall wash all glass on both sides at completion, or when directed, removing all paint spots, stains, plaster, etc.

Nothing herein is intended to limit the right of the General Contractor to seek payment from the party who is responsible for damages.

1.34 Grade Lines and Levels: The Contractor shall be responsible for locating and laying out the building and all its parts on the site, in strict accordance with the contractor, and shall accurately establish and maintain dimensional control. He shall employ and pay for the services of a competent and licensed New York Architect or Land Surveyor (who shall be approved by the A/E to perform all layout work, and to test the levels of evacuations, footing base plates, columns, walls and floor and roof lines, and furnished

the A/E as work progresses, certificates that each of such levels is as required by the contract drawings. The plumb lines of walls, etc. shall be tested and certified by the surveyor as the work progresses.

The Architect or Surveyor, in his layout work, both on the site and within the building shall establish all points, lines, elevations, grades, and bench marks for proper control and execution of the work. He shall establish a single permanent bench mark as directed to which all three coordinates of dimensional control shall be referred. He shall verify all contract-furnished topographical and utility survey data and all points, lines, elevations, grades, and bench marks; should any discrepancies be found between information given on contract drawings and the actual site or field conditions, the General Contractor shall notify the A/E of such discrepancy, and shall not proceed with any work affected until receipt of written instructions from the A/E.

1.34.1 The Contractor will employ a Land Surveyor, registered in the State of New York and acceptable to Architect, to perform survey work of this section. Submit evidence of Surveyor's errors.

1.35 Regulatory Requirements: All , plumbing, heating, and electrical work is to be done in accordance with the New York State Building Code. No work requiring inspections and approvals of construction code officials is to be covered or enclosed prior to inspection and approval by appropriate code enforcement officials.

Prior the start of any crane equipment operations, each contractor shall make all necessary applications and obtain all required permits from the Federal Aviation Administration (FAA). The sequence of operations, timing and methods of conducting the work shall be approved by the FAA to the extent that it relates to their jurisdiction.

1.36 Construction Progress Schedule: The contract shall be completed within the specified number of calendar days from the date a Notice to Proceed is issued.

The Contractor shall be responsible for preparing and furnishing to the Architect for his approval, which must be approved, before submission of the first monthly estimate for payment, a coordinated combined Progress Schedule which incorporated the Progress Schedules of all Subcontractors engaged on the project. The schedule shall be in the form of an arrow network diagram, bar chart, or other graphic Progress Schedule in sufficient detail to satisfy the Architect/Architect.

The Contractor shall submit copies of his initial draft of this schedule to all prime contractors. Each prime contractor shall then prepare a Progress Schedule of his own work, properly coordinated with the initial draft and then submit it to the Contractor for his preparation of a final draft of a Single Coordinated Progress Schedule. Monthly estimates will not be processed by the Board of Education until and unless a single coordinated progress schedule shall have been submitted and approved.

The Progress Schedule based upon the contractor's logic and time estimates shall indicate in suitable detail for display, all significant features of the work of each contractor, including the placing of materials orders and anticipated delivery dates for long lead items, submissions and approvals of shop drawings, all work activities to be performed by each contractor and the beginning and time durations thereof and the dates of substantial and final completion of the various branches of the work.

Immediately upon such approval, the Contractor shall appear and distribute six copies of the Progress Schedule to the Architect plus two copies to each Prime Contractor. In the event a new Prime Contractor is added to the job, the Contractor shall furnish a revised Schedule immediately with copies as indicated. The final coordinated Schedule shall be signed and dated by all the Prime Contractors involved.

Each Contractor shall furnish sufficient labor, construction plan, and equipment to insure the prosecution of the work in accordance with the Project Schedule. If the latest completion time for any significant job doesn't come within the time allowed by the Project Schedule, the sequence of the jobs and/or the time

for performance of the jobs shall be revised by the Contractor through concurrent operations, additional manpower, additional shifts, overtime, etc., until it is assured that the Contract Completion Date will be met. No additional costs to the Owner will be allowed by the contractor(s) for overtime, additional manpower, equipment, additional shifts, etc. (except as may be provided elsewhere in the contract) if such expediting procedures or measures are necessary to meet the agreed completion date.

Each contractor agrees that he will make no claim for, and have no right to, additional payment or extension of time for completion of the work, or any other concession because of any interpretation or misunderstanding on his part of the Project Schedule and the manner in which it will be used on the project or because of any other contractor's failure properly to participate in the development of a schedule or to perform his contract in accordance with the schedule.

1.37 Temporary Construction Facilities: The Contractor will provide onsite, and maintain during the project construction, a suitable weather-tight insulated field office conveniently located for reception and continuous use and shall maintain therein a complete set of Contract Documents including plans, specifications, CPM network diagrams, change orders, logs, and other details and correspondence. The field office shall contain approved and safe heating facilities and lighting, convenience outlets, fire extinguisher, minimum of two operating windows of 15 SF each, outside door, handle, hasp, and padlock. The field office may be removed upon enclosure of the building at a time directed by the contractor; contents and operations will be transferred to the interior of the project building by the general contractor and said offices shall be maintained by the general contractor until final acceptance of the project.

1.38 Temporary Water:

1. The Plumbing Contractor, or in the event there is no Plumbing Contractor to be executed for the project, the Contractor, shall provide, protect and maintain an adequately controlled (valve) water supply to a convenient location for the use of all Contractors on the project during the period of construction, either by means of the permanent water supply line, or by the installation of a temporary water supply line. The water supply line shall be made available within fifteen (15) days after the written request has been made to the Plumbing Contractor by any Contractor requiring this service. Copies of the request will be sent to the Architect/Architect and the Owner.
2. Temporary water will be provided by the Owner at no charge to the Contractor provided and to the extent it may be existing and available at the site immediately prior to commencement of and during construction. It is the obligation of any Prime Contractor requiring temporary facilities to investigate and make specific arrangements with the Owner for such facilities and to include in his proposal the cost of any additional facilities he may require for proper conduct of his Work.
3. The Plumbing Contractor is responsible to protect all water lines from damage or freezing, be they permanent or temporary. Should water connections be made to an existing line, the Plumbing Contractor shall provide a positive shut off valve at his cost and expense.
4. If the Plumbing Contractor fails to carry out his responsibility in supplying of the water, as set forth herein, he shall be held responsible for such failure, and the Owner shall have the right to take such action as he deems proper for the protection and conduct of the Work and may deduct the cost involved in so doing from any sums due the Plumbing Contractor.

1.39 Temporary Light & Power:

1. Electrical subcontractor shall extend electrical service to the building or buildings at locations approved by the Owner. Temporary electrical service shall be independent of the existing permanent service. Initial temporary service shall be three (3) phase or single phase depending upon closest availability to the project. Temporary light and power installations, wiring, and miscellaneous electrical hardware must meet the National Electric Code. This service shall be installed within fifteen (15) days after written request has been made to the Electrical Contractor by any Prime Contractor regarding such service (with copies to the Architect/Architect and the Owner). When the Contract calls for three-phase permanent service, the Electrical Contractor shall install same within a reasonable time to permit use by any other prime contractors. Electrical characteristics shall be provided to meet all temporary light and power reasonably required as herein and hereafter specified or as included under Supplementary General Conditions. The Electrical Contractor shall provide the necessary distributing facilities and meter, and shall pay the cost of running temporary services from the nearest utility company power pole. All costs shall be included in his bid.
2. The Electrical subcontractor shall extend the service into the building and shall provide temporary receptacles and lighting as described hereinafter, and one (1) 5 H.P. 208 V, or 220 or 230 volts power outlet for each building and one separate power outlet for each Contractor for the proper conduct of this Work. Power outlets shall be fed independently of the temporary lighting system. Where service of a type other than herein mentioned is required, the Contractor requiring same shall install and pay all costs of such special service. The size and incoming service and main distribution switch and panel shall be sized as any service by NEC requirements.
3. The Electrical subcontractor shall provide double sockets at a maximum of thirty (30) feet on centers in large areas. One socket shall contain a 150 watt lamp, and the other socket shall be a grounding type to accept a receptacle plug for small single-phase loads to be used for short periods of time. The Electrical Contractor shall provide double sockets of the type described above in all individual rooms, one (1) double socket for each 500 square feet or fraction thereof of room area (for example: a room 30' by 30' is equal to 900 square feet and would require two (2) double sockets).
4. The Electrical subcontractor shall provide all electrical service for operation of elevator equipment during construction, as well as for permanent installation.
5. The Contractor shall pay for cost of all electric energy used on distribution lines installed by the Electrical Contractor until the project is accepted by the Owner. The Electric Contractor shall provide and pay for all maintenance, servicing, operation and supervision of the service and distribution facilities. He shall also connect, maintain, and service any electrical equipment installed by the Mechanical Contractor which may be necessary for maintaining heat whenever heat is required in the building whether from the temporary or permanent system.
6. Any Contractor who fails to carry out his responsibility in the supplying of uninterrupted light and power or other utility as set forth herein, shall be held responsible for such failure, and the Owner shall have the right to take such action as he deems proper for the protection and conduct of the work and shall deduct the costs involved from the amount due the Contractor at fault.
7. There shall be no additional cost to the Owner or other Prime Contractors because of standby requirements due to conflict in the normal working hours of the various trades. The Electrical Contractor shall provide temporary light and power to all trades during normal working hours of such trades. Where overtime work by any Contractor

necessitates standby electricians or other trades, such Contractor shall be responsible for making appropriate arrangements, financial and otherwise, for such service at no cost to the Owner.

8. The Electrical Contractor shall observe the requirements of the Federal Occupational Safety and Health Act of 1970 with regard to temporary light and power.

1.40 Temporary Heat:

1. Prior to the building being enclosed by walls and roof, if the outside temperatures shall fall below 40°F, at any time during the day or night, and heat is required for work in progress or for its protection, the respective Contractors responsible for such phase of work shall furnish, at their expense, acceptable means to provide sufficient temporary heat to maintain a temperature of not less than 45°F for that portion of the work for which they are directly responsible.
2. Heating of field office, storage spaces, concrete and masonry materials and working area heating, as required, shall be provided by the responsible Contractors.
3. As soon as the Owner determines that the building or a major unit thereof is "generally enclosed" by walls and the roof, the responsibility of supplying working area heat shall rest with the Contractor. When the outside temperature falls below 40°F at any time during the day or night, the Contractor shall furnish sufficient heat by the use and maintenance of PL gas heaters or other acceptance means to maintain a temperature of not less than 45°F within the enclosed area of the building at all times and shall remove when no longer required. The Contractor will be held responsible for providing temporary heat for damages, as a result of freeze-ups, for a period which will extend sixty (60) days beyond the date of which the Owner determines that the building is temporarily enclosed (without the use of temporary enclosures or materials except in circumstances having the prior written approval of the owner). He shall remove soot, smudges, and other deposits from walls, ceilings, and all exposed surfaces, which are the result of the use of heating equipment, including the permanent heating system, during the period of its use for supplying heat. He shall not do any finish work until the areas are properly cleaned. The Contractor shall provide or arrange, at his expense, supervision of the heating equipment at all times which obligations shall commence sixty (60) days after the acknowledged permanent enclosure of the building or buildings, as confirmed by the Owner. The Contractor shall furnish and pay for all fuel for heat required during the entire construction period.
4. The Contractor shall not assume that the permanent heating system or any part thereof will be available for furnishing of temporary heat during the period for which temporary heat is the responsibility of the Contractor. The Contractor's base bid price shall therefore include the cost of all equipment necessary for providing temporary heat as required under these specifications.
5. All heating equipment shall be NFPA approved and connected to approved flues to the atmosphere. Gas cylinders within the building shall not exceed 100 lbs. capacity, shall have interstate Commerce Commission approval and shall be fitted with a permanent cap to protect the valve when not in use. Heaters shall be approved by a recognized testing laboratory and must be equipped with a positive shut-off safety valve. Cylinders and heaters shall stand at least 6 feet apart and be connected with two (2) braid neoprene hoses that will withstand 250 PSI test pressure.

6. Storage of cylinders within the building will not be permitted at any time. Fire extinguishers shall be provided by the Contractor on each floor where heaters are used, and the areas must be adequately ventilated.
7. Contractors responsible for providing temporary heat shall train at least two (2) dependable persons to oversee temporary heat operations.
8. For the purposes of establishing the beginning of the Contractors obligation to provide temporary heat, a building, or major unit thereof, shall be considered generally enclosed when (a) the exterior walls have been erected; (b) a temporary roof or permanent roof is installed and in watertight condition; (c) temporary or permanent doors hung and window openings are closed with either permanent or temporary weather-tight enclosures (cardboard or woven materials are not to be used; however, any impervious transparent material responsibly intended for such purpose is acceptable). A major unit of buildings as referred to herein shall be: (1) an entire separate structure, or (2) a fully enclosed wing which shall have a floor area equal to at least fifty percent (50%) of the total floor area of the project.
9. When the building or a major unit, including the boiler room area, is GENERALLY enclosed as herein defined and appropriate notice has been given, it shall be the obligation of the Owner, or his authorized representative, to so acknowledge at a job conference at the site. The minutes of said meeting shall contain acknowledgment. If the Architect/Architect and the Owner concur that the building or major unit is properly GENERALLY enclosed, then at the date of the job conference at which notice was given, the supply of heat (INCLUDING COST OF FUEL) and the payment of cost of repair of damage created by freeze-up shall become the responsibility and obligation of the Contractor. Confirmation of the time that such responsibility and obligation becomes effective shall be incorporated in the minutes of the job conferences, as prepared by the Architect/Architect. Copies of the minutes shall be sent to all Contractors engaged in the project, who shall give due attention to their obligations in this connection.
10. The Contractor shall continue to provide acceptable means of heat until the building is completed and the water systems have been drained down. The fuel shall be paid for by the Contractor regardless of who provides and maintains the heat of equipment.
11. The Owner reserves the right to permit the substitution of limited temporary enclosures in lieu of permanent construction for the attainment of a permanently tight building if such action is deemed by the Owner to be in the best interest of the project.

This action will not be such as to create future jeopardy to the environmental integrity of the building as construction proceeds.

1.41 Sequence of Construction: The contractor(s) is/are responsible for coordination with the Owner in scheduling the work.

1.42 Temporary Toilet Facilities: The Contractor shall provide and pay for suitable temporary toilets, at an approved location on the site, prior to the start of any field work. They shall comply with State and Local laws. The Contractor will be responsible for maintenance, removal and relocation as described hereinafter.

Toilets shall be of the portable, chemical type, mounted on skids, with screened enclosures with doors, each having a urinal and water closet.

Each unit shall be serviced at least twice a week, including removal of waste material, sterilizing, recharging tank, refilling tissue holders, and thorough cleaning and scrubbing of entire interior which shall be maintained in a neat and clean condition.

Relocate facilities inside building and connect to water and sewer as soon as work will allow.

When toilets are connected to water and sewer lines, take precautions to preventing freezing.

Remove units from the site at completion of work when directed.

Workmen are NOT to use the finished bathroom and toilet facilities in the project buildings (reasonable steps must be taken by the Contractor to enforce this rule).

1.43 Temporary Enclosures: Whenever necessary, in order to maintain proper temperatures for the execution of the work, or for the protection thereof, the Contractor shall furnish and maintain temporary enclosures for all openings in exterior walls that are not enclosed with finishing materials. Temporary wood doors shall be provided at door openings.

1.44 Protection of Work and Property:

1. Safety Precautions and Programs: Each prime contractor shall be responsible, in cooperation with and under the leadership of the General Contractor, for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. He shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent, unless otherwise designated by the contractor in writing to the Contracting Officer.
2. Safety of Persons and Property: Each prime contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:
 - a. Every employee on the work and all other persons who may be affected thereby;
 - b. All the work and all the materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the contractor or any of his subcontractors, or lower tier subcontractors; and
 - c. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.

The contractor shall give all notices in writing, and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the safety of persons or property of their protection for damage, injury or loss.

The contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including rails, night-lights, the posting of danger signs, and other warnings against hazards, promulgating safety regulations, notifying owners and users of adjacent utilities and other means of protection against accidental injury or damage to persons or property.

When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution for the work, the contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

No contractor shall load or permit any part of the work to be loaded so as to create a safety hazard.

The contractor shall promptly remedy all damage or loss to any property caused in whole or in part by the contractor, any of his subcontractors, subcontractors, or anyone directly or indirectly employed by any of them, or by anyone whose acts any of them may be liable and for which the contractor is responsible. The foregoing obligations of the contractor are in addition to his obligations as stated elsewhere herein.

1.44.1 The Owner may maintain security for their sole benefit. It is the responsibility of the Contractor to provide security and or protection of their work until the Owner accepts such work.

1.44.2 The Contractor is responsible for the furnishing, installation, maintenance and removal of safety, fall and opening protection, etc., associated with their work. The Contractor shall furnish, install, maintain and remove all perimeter protection cable in full compliance with OSHA standards at all elevated areas, including the roof level.

1.44.3 The Contractor is responsible for the removal and immediate replacement, at the conclusion of their work, of all temporary protection measures as required in order to facilitate their work. No fall or opening protection shall be removed until the progress of the permanent work is installed in a manner that results in no hazard to any party.

1.44.4 The installation of all barricades, enclosure, temporary partitions and other protective measures shall be performed in full compliance with the requirements of the New York State Department of Labor, OSHA regulations and all other applicable Federal, State and Local laws.

1.45 Emergencies: In any emergency affecting the safety of persons or property, the contractor shall act with diligence, at his discretion, to prevent threatening injury, damage, or loss. In such case, he shall immediately notify the Owner and Architect of the action taken and shall forthwith prepare and submit a detailed and documented report to the Owner and Architect.

Wherever the contractor has taken no action but has notified the Owner and the Architect or wherever the Owner and Architect has otherwise been made aware of any emergency threatening injury to persons, or loss or damage to the work, or to adjacent property, the contractor shall act only as instructed or authorized by the Owner or Architect.

1.46 Temporary Drives, Walks, and Parking Areas: The Contractor shall be responsible for keeping all roadways, drives, and parking areas within or proximate to the site free and clear of debris, gravel, mud, or any other site materials by ensuring that all measures reasonably necessary are taken to prevent such materials from being deposited on such surfaces including, as may be appropriate, the cleaning of vehicle wheels, etc. prior to their leaving the construction site. Should such surface require cleaning, the Contractor will clean these surfaces without additional cost to the Owner. The Contractor will be held accountable for any citations, fines, or penalties imposed for failure to comply with local rules and regulations.

Should the Contractor elect to commence construction of permanent driveways, parking areas, or walks, other than general grading of temporary shop areas, he shall not do so without the approval of the A/E. He shall not do so without having prepared the subgrade, as may be elsewhere required by the Specifications, nor will he be relieved from any responsibility for providing additional materials or of reworking the subgrade prior to completion, if so required to make the improvements conform fully with the specifications.

1.47 Temporary Controls:

1. Dust Control - The Contractor, at his expense, shall provide and maintain necessary temporary dustproof partitions around areas of work in any existing building or in new building areas as directed by the Architect.
2. Pollution Control - All sewage disposal work shall conform with the regulations of the State of New York Department of Environmental Protection.
3. Haul Routes:
 - a. The Contractor shall be responsible for providing and maintaining unobstructed traffic lanes on the designated Construction Access Routes either shown on the contract drawings or reasonably required so as to perform the work and shall provide and maintain all reasonable required safety devices. He shall provide the addition of material, their grading and compaction, the removal of snow and debris so as to provide and maintain the general serviceable condition of the access roadbed, as well as pedestrian ways.
 - b. The Contractor shall obtain permission, in writing, from the A/E before using any existing driveway or parking areas not specifically designated for such use in the Contract Documents for construction purposes. He shall maintain such driveways and areas in good condition during the construction period, and completing of the project, shall leave them in the same condition as the start of the work. Conditions before use should be carefully photographed or documented by the Contractor.

1.48 Testing of Mechanical and Electrical Systems: When mechanical, electrical, or other equipment is installed, it shall be the responsibility of the installing Contractor to operate it for such period of time as may be required for the proper inspecting and testing of the equipment and for instructing the Owner's operating personnel. All tests shall be conducted in the presence of, and upon timely notice (three (3) working days) to the A/E prior to acceptance of the installation.

If the Architect determines that any work requires special inspection, testing or approval, not otherwise required herein, he will instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give a three (3) work day notice. If such special testing or inspection reveals a failure of the work to comply with the requirements of the Contract, the Contractor shall bear all costs thereof.

1.49 Final Clean Up: In addition to those responsibilities addressed in the General Conditions, the Contractor shall:

1. Remove all debris and rubbish resulting from or relating to his work. Rubbish shall not be thrown from building openings above the ground floor unless contained within chutes;
2. Remove putty stains from glass and mirrors; wash and polish inside and outside;
3. Remove marks, undesirable stains, fingerprints, other soil, dust or dirt from painted, decorated or stained woodwork, plaster or plasterboard, metal acoustic tile and equipment surfaces;
4. Remove spots, paint and soil from resilient, glazed and unglazed masonry and ceramic flooring and wall work;
5. Remove temporary floor protections, clean, wash or otherwise treat and/or polish, as directed, all finished floors;

6. Clean exterior and interior metal surfaces, including doors and window frames and hardware of oil stains, dust, dirt, paint and the like, polish where applicable and leave without fingerprints or blemishes; and
7. Restore all landscaping, roadway and walkways to preexisting condition. Damage to trees and plantings shall be repaired in the next planting season, and such shall be guaranteed for one year from date of repair and/or replanting.

1.50 Changes in Work: Intentionally Omitted.

1.51 Permits: Construction permits must be forwarded by the Contractor to the owner before any work can begin.

1.52 Possible Asbestos Containing Materials: There may be some areas where asbestos containing building materials may exist (i.e., floor tile, plaster walls, ceiling tile, etc.) and could possibly be disturbed during construction of this project. Asbestos material disturbance shall be coordinated with the Owner, unless the removal is specifically included in the scope of work of this contract.

1.53 Lead Base Paint: All contractors shall be made aware that some of the walls and ceilings that are painted and are required to be disturbed and may contain lead-based paint. The contractor shall follow safe work practices with regard to removing any lead based paint from these areas.

1.54 Use and/or Storage of "Hazardous Substances": The contractor is to notify the Owner of any "Hazardous Substances" to be used/stored on site during construction at a Pre-Construction Meeting. This notification shall include a "Hazardous Substances Fact Sheet" as prepared by the Department of Health and Senior Services.

The above procedures are as per Act No. 246 of the State of New York, PL 1997, c.364.

1.55 Reserved

END OF SECTION 010000



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/26/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No. Ext):	FAX (A/C, No):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
NY	INSURER A:	Insurance Company
	INSURER B:	Insurance Company
	INSURER C:	Insurance Company
	INSURER D:	Insurance Company
	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: CL1451605100 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY						EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	number	mm/dd/yy	mm/dd/yy	MED EXP (Any one person) \$ 5,000
	<input checked="" type="checkbox"/> Contractual Liability						PERSONAL & ADV INJURY \$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$ 2,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO OR						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	number	mm/dd/yy	mm/dd/yy	BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident) \$
							\$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB						EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB	<input checked="" type="checkbox"/>					AGGREGATE \$ 1,000,000
	<input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	number	mm/dd/yy	mm/dd/yy	\$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below			N/A	mm/dd/yy	mm/dd/yy	E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Re: (State Project - or all project & locations); The following are included as additional insured on a primary & non contributory basis on General Liability Under form CG2010 11/85 (Or equivalent including ongoing and completed operations) Auto & Excess/Umbrella. A waiver of subrogation applies in favor of the additional insureds on the General Liability Auto and Workers Compensation; No action over/labor law claims exclusions are included within the policy contract; LIST ADDITIONAL INSURED HERE

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
Sample	AUTHORIZED REPRESENTATIVE

TABLE 1-1

LIQUIDATED DAMAGES

ASPIRE BREWING

Description	Contract Start Date	Construction Start Date	Construction Completion Date	Liquidated Damages \$/Calendar Day
Aspire Brewing – Proposed Tap Room & Brewery	Notice to Proceed	January 18, 2022	June 30, 2022	\$1,000.00 / Day

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 PROJECT INFORMATION

- A. Project: Aspire Brewing – Proposed Tap Room & Brewery
- B. Project Location: 400 North Galleria Drive in the Town of Wallkill, New York.
- C. Owner: Sonny Patel Brewing Company, Aka; Aspire Brewing, Aka; Beer World
- D. Architect: LAN Associates, Engineering, Planning, Architecture, Surveying, LLP
- E. The overall scope of work includes: Refer to the construction drawings for the complete scope of work. The contractor shall provide all labor, materials, equipment and services to furnish deliver and install all materials and related work as shown on the drawings, as required by these specifications and/or as directed by the Architect
- F. Contracts: The Project will be constructed under a single AIA A101 contract.

1.2 GENERAL REQUIREMENTS

- A. INTENT OF DOCUMENTS – See General Conditions for resolution of conflicts between drawings and specifications. In the event of conflict, ambiguity and/or unclear circumstances between any of the requirements of the Contract Documents, the requirement that is most inclusive and of highest quality, quantity, and/or cost shall govern. The Contractor shall (1) provide the better quality or greater quantity of Work and/or (2) comply with the more stringent requirement; either or both in accordance with the Architect's interpretation. The Contractor herewith agrees that no extracompensation shall be awarded to him based upon a claim of conflict, ambiguity or unclear circumstances in the Contract Documents. See the General Conditions for greater detail.
 - 1. GC to carry insurance coverages per Article 10 in the General Conditions of the Contract for Construction which are specified in Division 0.
 - 2. GC and subcontractors will not be allowed to use existing or new plumbing fixtures to wash out mortar pans, grout, adhesives, etc.
 - 3. GC is specifically notified that ALL floor areas will receive self-leveling underlayment. The thickness will vary due to ceramic tile removals, mud set removals, varying floor slab elevations from room to room, areas where chases removed, grind down high spots, etc. Contractor will review and bid accordingly to achieve a consistent flat and level floor at no additional cost to the owner.
 - 4. GC will utilize lead-safe work practices as– when impacting/removing/disposing of any lead containing items.
 - 5. GC's abatement contractor will probe walls /investigate above the ceilings and walls to confirm presence or absence of fittings / insulation in concealed locations, prior to abatement.
 - 6. All staging area work (signage, parking areas, fence enclosures, etc.) indicated for staging area is by GC. Remove all temporary materials and restore all temporary roadways / staging surfaces at conclusion of the project.
 - 7. GC to provide dust protections and a negative air environment to mitigate any dust and exhaust all work areas of any odors, fumes, etc. from the adjacent occupied spaces.

8. GC shall install floor protections (utilizing heavy duty "Ram-Board" with taped joints, or equivalent) to protect finished floor surfaces from damage for all room areas and corridor access routes necessary for construction and until the space is turned over to the Owner.
9. Contractor is specifically reminded about their responsibilities for clean-up. Maintaining a clean jobsite is considered a safety issue and will be strictly enforced. In addition to daily cleaning, the contractor is required to hire a professional cleaning company to final clean all areas impacted by the construction. This includes completely cleaning any surfaces/equipment/furniture which has been dusted by the construction work. If the contractor does not properly perform this function when directed by the Owner, the owner will perform the work with others and deduct the cost from the contractor.
10. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the work is indicated.
11. Owner Occupancy: Allow for Owner occupancy, work by other owner contractors and use by the public.
12. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
13. Existing building spaces may not be used for storage unless approved by the Owner.
14. Only materials and equipment, which are to be used directly in the work, shall be brought to and stored on the project site by the Contractor. After equipment is no longer required for the work, it shall be promptly removed from the project site. Protection of construction materials and equipment stored at the project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractors.
15. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas indicated. If additional storage is necessary, obtain and pay for such storage off-site.
16. The Contractor(s) and any entity for which the Contractor is responsible shall not erect any sign of the Project site without the prior written consent of the Owner, which may be withheld in the sole discretion of the Owner.
17. Contractor shall ensure that the work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the work and all adjacent areas. The work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of: Any areas and buildings adjacent to the site of the work or; The Building in the event of partial occupancy.
18. Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitations, lavatories, toilets,

entrances and parking areas other than those designated by the Owner. Without limitation of any other provision of the Contract Documents, the Contractor shall use its best efforts to comply with the rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project Site, and the Building, as amended from time to time. The Contractor shall immediately notify the Owner in writing if during the performance of the Work, the Contractor finds compliance with any portion of such rules and regulations to be impracticable, setting forth the problems of such compliance and suggesting alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner may, in the Owner's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements, applicable to use, and occupancy of the Project Site and the Building.

19. Maintain the existing building in a safe and weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. When work is scheduled after hours clean and remove all temporary barriers and protection so that the building can be occupied the following day when normal building occupancy will occur.
20. The General Contractor is responsible for maintaining a safe jobsite. This include actively reviewing their work areas to ensure that they are in compliance with all required OSHA regulations. It is a contract requirement that each contractor conducts weekly tool-box safety meetings to ensure that their employees are properly educated and utilizing safe work practices. (Copies of these weekly meetings and a list of the attendees will be forwarded to the Owner on a weekly basis). Contractors will comply with all requirements outlined in Article 7 of the General Conditions including providing their employees with PPE (personal protective equipment), such as hard hats, proper work boots, safety harness, safety glasses, etc.
21. Keep areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris.
22. Smoking, drinking of alcoholic beverages or open fires will not be permitted on the project site.
23. Utility Outages and Shutdown:
 - a. Limit disruption of utility services to hours the building is unoccupied, weekends or holidays at no additional cost.
 - b. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7-days notice to the Owner and authorities having jurisdiction.
 - c. Prevent accidental disruption of utility services to other facilities.
 - d. All costs for manning of temporary shutdowns and utility crossovers, including 24-hour fire watch if necessary, is included in the contractor's bid regardless of weekend, holiday, etc.
24. The Architect cannot guarantee the correctness of the existing conditions shown and assumes no responsibility therefore, it shall be the responsibility of the Contractor to visit the site and verify all existing conditions prior to bid.
25. The Owner will purchase certain items required for the overall operation of this facility. A "Division of Labor" is provided in Section 1.5 to identify and clarify the Owner and Contractor responsibilities.

26. The Contractor(s) will cooperate with the Owner's vendors as may be necessary to permit the work to be accomplished.
27. The cooperation may extend to the receiving, unloading and placement of saidequipment if directed by the Owner.
28. Terms of payment, if any, shall be in accordance with the General Conditions as amended or modified.
29. Each Contractor is advised the Owner may enter into separate contracts that may be in their best interest.

1.3 OCCUPANCY REQUIREMENTS

1. Full Owner Occupancy: The Contractor shall cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. The Contractor shall perform the work so as not to interfere with the Owner's or tenant operations.
2. Partial Owner Occupancy: The Owner reserves the right to occupy the place and install equipment in completed areas of the work prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work, Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
3. The Architect will prepare a Certificate of Substantial Completion for the work to be occupied prior to Owner occupancy.
4. The Contractor shall obtain a Certificate of Occupancy from local building officials prior to Owner occupancy.
5. Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy, the Owner will operate and maintain mechanical and electrical systems serving occupied portions of the building.
6. Upon occupancy, the Owner will assume responsibility for maintenance of occupied portions of the building.

1.4 PRODUCTS ORDERED IN ADVANCE

1. None

1.5 DIVISION OF LABOR

1. Lobby Tree & Planter: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)
2. Miscellaneous Planters: Owner to provide. Owner to install.
3. Exterior Plants in New Planters: Owner to provide. Owner to install.
4. Furniture: Owner to provide. Owner to install.
5. Water Features: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)

6. Moss Areas: Owner to provide. Owner to install. (Contractor to provide blocking for support as required.)
7. Game Room furnishing items: Owner to provide. Owner to install.
8. AV items: Owner to provide. Owner to install. (Contractor to provide conduit, power, and blocking as required)
9. Security items: Owner to provide. Owner to install. (Contractor to provide conduit, power, and blocking as required)
10. Self-serve Tap System: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)
11. Taps & Drip trays: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)
12. Custom Chandelier Lighting (3) Locations Within Conference Room: Owner to provide. Contractor to install.
13. Brewing Equipment: Owner to provide. Contractor to install.
14. Canning Equipment: Owner to provide. Owner to install.
15. Custom Building Signage: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)
16. Custom Signage Within Water Feature: Owner to provide. Owner to install. (Contractor to provide infrastructure as indicated on the drawings.)
17. Interior plants: Owner to provide. Owner to install.

1.12 ASBESTOS AND LEAD PAINT AWARENESS REQUIREMENTS

1. No hazardous material testing has been performed on the materials that will be disturbed. It is the Contractor's responsibility to implement the appropriate safeguards during removals and demolition to prevent contamination and to protect the health, safety and welfare of their work force.
2. The Contractor agrees not to use or permit the use of any asbestos containing material in or on any property belonging to the Owner. For purposes of this requirement, asbestos free shall mean free from all forms of asbestos, including - actinolite, amosite, anthrophyllite, chrysotile, cricidolite and tremolite, both in friable and non-friable states and without regard to the purposes for which such material is used.
3. Contractors will investigate / verify then carefully demolish existing ceiling and/or wall items so as not to disturb any asbestos containing fittings and / or insulation which may be located above existing ceilings or inside walls.

1.13 CONSTRUCTION TIME AND PHASING REQUIREMENTS

The Contractor is advised the "time is of the essence" of the Contract as defined in Article 13 of the "General Conditions" for the completion of the construction of the facility. It is understood that the work is to be carried through to completion with the utmost speed consistent with good workmanship.

Time of Completion shall be as established in the Milestone Schedules (Section 011100).

Further, safe and legal ingress and egress shall be maintained at all times to and through the occupied portions of the construction site.

Work shall proceed in such a manner as to cause the least amount of disruption to the ongoing operations as possible.

All work and storage areas shall be completely enclosed by a fence or barricade at all times

so the public cannot approach the storage area or the equipment.

The Contractor shall maintain fences and barricades at all times and shall repair/ restore and/ or pay for any temporary fencing damaged by their work.

Maintain at all times, all exits and walkways.

Where the barricade is removed for work, the Contractor performing such work shall provide adequate safety personnel to prevent unauthorized persons from approaching the work area.

Construction Phasing

The phasing and/ or milestone schedule contained in Section 011100 has been established for the overall construction of the project.

Each Contractor is advised that areas of the existing buildings which are to be added to and / or altered under this Contract will remain in use during construction, coordinate with Section 015000 for temporary facilities.

Electrical and mechanical services to the tenant spaces shall be maintained at all times.

Swing-overs to new facilities shall be made so as to cause the least interruption to the facilities' operations.

The Contractor shall provide and maintain all required separations between old and new construction to prevent: Unauthorized entrance to construction areas by others, heat loss from existing building, water (rain or ground) infiltration into existing building.

Exterior alteration and restoration, as required, may proceed outside of phasing schedule at the Contractor's option with permission from the Owner.

Site development work shall proceed in such a manner to cause the least amount of disruption to the ongoing operations as possible.

1.14 PROOF OF ORDERS AND DELIVERY DATES - Coordinate with Sections 013300.

- A. Within 2 weeks after the approval of shop drawings, samples, product data and the like, the Contractor shall provide copies of purchase orders for all equipment and materials which are not available in local stock. The Contractor shall submit written statements from suppliers confirming the orders and stating promised delivery dates. Failure to provide this critical information will result in Owner holding monthly requisition payments until received.
- B. Due to COVID-19 and it's potential to disrupt material supply-chains, the contractors are required to obtain all materials for the project and store them onsite in their individual Conex boxes. This includes general material items typically readily available (piping, conduits, wire, metal studs, ceiling, etc.). The owner will pay for these stored items delivered to the jobsite upon verification of the delivery by physical inspection at the jobsite.

1.15 FIELD MEASUREMENTS

- C. The Contractor shall take all necessary field measurements prior to fabrication and installation of work and shall assume complete responsibility for accuracy of same.
- D. This project is a renovation and therefore necessitates additional attention to existing

conditions receiving newly fabricated and installed equipment, i.e. note the requirements for field dimensioning of shop fabricated items whether or not so required by each technical section.

1.16 INITIAL SUBMITTAL REQUIREMENTS

As outlined in Division 01, each Contractor shall provide items noted including - bonds, insurance, emergency telephone numbers, progress scheduling, schedules of submittals, subcontractor listings and the like prior to the start of any work. The owner will not issue contracts until all bonds and insurance information is received by the contractor and verified correct.

1.17 SCHEDULES

The milestone schedule presented in the documents is for bidding and general purposes..

General:

1. The objective of this project is to complete the overall work in the shortest period of time and to protect the building and occupants from damages caused by weather and construction activity during the progress of the work.
2. To meet these objectives, the Contractor shall plan the work, obtain materials, and execute the construction in the most expeditious manner possible in accordance with the requirements listed below.
3. If the Contractor fails to expedite and pursue any part of the work, the Owner may terminate the contract as per Article 17 or may carry out the work with others per the General Conditions.
4. The Contractor shall work in coordination with work of Owner's Contractors and with special attention to noise, dust, safety and other contract requirements for work in and around the occupied buildings.
5. All contractors are required to comply with proper sequencing of work in accordance with an approved Milestone Schedule (See Section 01 11 00).

1.18 ADDITIONAL REQUIREMENTS

The following are additional general and special requirements which will govern the work of the projects covered by these Documents.

1. If it appears that some of the work cannot be completed by the scheduled date, the Contractor shall increase the work force or increase the hours of work, including evenings and weekends as necessary, and cover any additional costs to the Owner, architect
2. If the work is complete but the area is not cleaned and debris or equipment is not removed, the Owner shall have the right to prepare the area for occupancy with his own forces and deduct the costs from the Contract Amount. (If Contractor does not respond within 4 hours' notice).
3. If the Contractor fails to staff the job adequately to meet the completion date, the Owner reserves the right to assume possession of the material and complete installation with the Owner's forces or other Contractors or to require the Contractor to work evenings and weekends at no additional cost.
4. The Contractor is responsible for temporary protection of all work until acceptance.

5. All existing conditions must be verified in the field. The Owner takes no responsibility for actual conditions found deviating from the drawings. If existing condition interferes with contract work, contractor is responsible to eliminate this condition.
6. Contractor must plan, provide and maintain his own access, ramping, and egress as required into and out of the site, staging of trailer(s), materials, machinery, and equipment in agreement with the Owner. Maintain free and safe access on the jobsite for other related project personnel. Maintain safe pedestrian or vehicular traffic must be regulated by a flagman. Trucking and delivery operation should be coordinated with Owner and all other trades.
7. Contractor is responsible for all work shown on Contract Documents
8. Contractor is responsible to maintain existing site fencing in its existing condition.
9. Contractor's personnel will not be permitted to use the Owner's facilities (including toilet, telephone, food services, etc.) for their own benefit. Contractor's Superintendent must explain this to all their field forces.
10. Time is of the essence. Contractor's proposed schedule must be approved by the Architect & Owner. Contractor shall indicate significant events such as submittals, shop drawings, material ordering, fabrication, delivery, coordination precedents, installation, testing and turnover by area or system as agreed with Owner and/or Architect. A revised progress status shall be required on a weekly basis.
11. Decisions required from the Owner or Architect, shall be anticipated by the Contractor to provide ample time for inspection, investigation or detailed drawings.
12. Contractor shall limit his operations including storage of materials and prefabrication to areas within the Contract Limit Lines unless otherwise permitted by the Owner.
13. Contractor shall coordinate the use of premises with the Owner and shall move at his own expense any stored products under Contractor's control, including excavated material, which interfere with operations of the Owner or separate contractors.
14. Contractor shall obtain and pay for the use of additional storage of work areas needed for operations.
15. Contractor shall assume full responsibility for the protection and safekeeping of products under this Contract stored on the site.
16. The intention of the work is to follow a logical sequence; however, the Contractor may be required by the Owner to temporarily omit or leave out any section of his work or perform his work out of sequence. All such out of sequence work and come back time to these areas shall be performed at no additional cost.
17. Contractor shall submit a three-week schedule (man-loaded by work activity and area) to the Owner & Architect each week. Contractor's representative shall attend a weekly meeting with all contractors, chaired by Owner, for the purpose of job coordination and sequencing. Contractor is responsible to coordinate the job with the Owner, and to cooperate with other trades in pursuit of the overall project's shop drawings and actively participate in resolving discrepancies, conflicts, interferences, etc.
18. Sufficient manpower shall be provided at all times to maintain progress of the job. A shortage of labor in the industry shall not be accepted as an excuse for not properly manning the job.
19. The contractor shall take special care in verifying that his equipment matches the characteristics of the power being supplied.
20. Any contractor personnel including project managers, supervisors, etc who engage in any personal attacks, belligerent or threatening speech/texts, etc., to the owner, or any of its agents, will be removed from working on the project.

21. Insubordination, unsafe practices, horseplay, abusive behavior or language, wanton destruction of property, use of drugs or alcohol, possession of firearms, and solicitation shall not be tolerated. There will be no warnings, and Contractor shall designate a responsible on-site supervisor to handle any situations that may arise, including termination.
22. The contractor is responsible to supply and install all wood blocking/bracing necessary to properly secure their work. This responsibility includes coordinating the installation in concealed areas without delaying other trades.
23. Union business shall not be conducted on site. Any Union representatives that visit the site must declare what Contractor's personnel they represent and must be escorted by that Contractor's Union steward at all times. No visitors, sales representative or non-working personnel shall be permitted on site without prior consent of the Owner. No photographs shall be taken without the Owner's prior approval.
24. Organize daily clean ups as well as participating in a weekly joint clean up involving all prime contractors on site. Clean up shall be considered a safety issue. If any contractor fails to keep the site safe and clean within 4 hours of being notified by the Owner, either verbally or in writing, the Owner will have the cleanup work performed by others and will back charge accordingly.
25. Contractor shall provide protection from damage to adjacent and adjoining work and/or structures. Contractor shall clean, repair and/or replace any damage for which this contractor is responsible.
26. Contractor shall examine surfaces and conditions prior to start of work. Report unacceptable conditions to the Owner. Do not proceed until unacceptable conditions are corrected and acceptable. Starting of work implies acceptance.
27. Upon removal of exterior walls, doors and storefront units, the building security and weather protection is the responsibility of the contractor performing the removals.
28. Each Contractor shall include general housekeeping of light debris. All debris from each Prime Contractor will be collected daily and disposed of into their dumpsters.
29. It is the responsibilities of all the Contractor to review the entire summary of work and remaining documents for additional work items.
30. Each contractor is responsible to review and become familiar with the scope of work included in all Contracts.
31. Each contractor shall provide the engineering layout required to properly complete his work from an established working point. Contractor shall employ only competent engineering personnel skilled in performing layout tasks of similar complexity.
32. Prior to commencing the work, each Contractor shall provide written acceptance of grades, structures, substrates, and/or systems installed by other Contractors as suitable for installation of his work. Failure to provide this verification prior to commencing work shall constitute acceptance of the existing conditions.
33. The Contractor shall coordinate with the Owner for lay down areas, staging areas, and overall use of project site.
34. All contractors and their employees, subcontractors and supplier are expressly prohibited from entering the occupied areas of the building without prior written permission of the Owner and for using any of its facilities (i.e. restrooms, retail spaces, etc.).
35. The contractor is responsible for the timely provision of the information required by other Contractors for the progress of other Contractors' work.

36. All contractor foremen must have working cell phone and number provided to Owner.

37. No recycled import fill materials are permitted.

1.19 FOOD SERVICE COORDINATION

E. Food Service Consultant: Raymond/Raymond Associates

1. Contact: Brett Farrell, Owner
RRA Designs
O: 845 360 5112
C: 845 313 3259

F. Food Service Equipment Contractors, Vendors & Installers:

1. SINGER EQUIPMENT
Attn: Michelle Marzullo
187 Washington Avenue
Fort Lee, NJ 07024
P: (201) 384 8877
F: (201) 384 9289
mmarzullo@singerequipment.com
2. SAM TELL & SON, INC.
Attn: Arthur Fisher
1375 Broadway, Suite 502
New York, NY 10001
P: (212) 244 0008
Afisher@samtell.com
3. BFA FOOD SERVICE
Attn: Bob Finkelstein
325 Division Street
Boonton, NJ 07005
P: (973) 808-8770
bobf@bfafoodservice.com
4. TODD DEVIN FOOD EQUIPMENT, INC.
Attn: Todd Devin
668 Stony Hill Road, PMB #129
Yardley, PA 19067
P: (609) 333 8805
tdfeinc@aol.com

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011000

SECTION 011100 – MILESTONE SCHEDULE

PART 1 – GENERAL

1.01 MASTER SCHEDULE

The following milestone schedule serves as a basis for bidding. A Master Schedule will be developed at a general meeting of the awarded contractor within 10 days of Award the Contracts. This Master Schedule will incorporate the milestones listed below.

1.02 SUBSTANTIAL COMPLETION & MILESTONE DATES

A. Award Contracts on or about **December 17, 2021**

B. Project Commencement – January 18, 2022

C. Milestone Dates

Work Area	Commence Construction	Substantial Completion	Completion of Punchlist
All	January 18, 2022	May 27, 2022	June 30, 2022

D. Final Close-out of all Contract

a. Final Close-out of Contract: Final close out of all contracts shall be within 30 days of the substantial completion dates established above. All work including, but not limited to punch lists, project closeout, testing, balancing, owner's operation, O&M manuals, as-builts, warranties, etc. shall be complete.

E. Coordination of Move-In

It is the intent of the Owner to begin move-in of furnishings, fixtures and equipment prior to the dates of substantial completion as outlined above. The Contractor shall work in harmony with the Owner to facilitate such move-ins for the purpose of beneficial use and occupancy.

END OF SECTION 011100

SECTION 012100 – ALLOWANCES

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.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and 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.
- B. Types of allowances include the following:
 - 1. Contingency allowance.

1.3 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 the actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.4 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. The Contractor's overhead and profit, including costs for bonds and insurance, delivery, equipment rental and similar costs, for these allowances shall be included in the values of the general requirements of contract sum and are not chargeable under allowance disbursement.
- C. At Project closeout, credit unused amounts remaining in the contingency allowance to the Owner by Change Order.

1.5 UNUSED MATERIALS

- A. Return unused materials to the manufacturer or supplier for credit to the Owner, after installation has been completed and accepted.

- B. When requested by the Architect, prepare unused material for storage by Owner where it is not economically practical to return the material for credit. When directed by the Architect, deliver unused material to the Owner's storage space. Otherwise, disposal of unused material is the Contractor's responsibility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects.

3.2 PREPARATION

- A. 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. Allowance No. 1: Contractor shall include a contingency allowance of \$500,000.00 for use according to Owner's instructions.

END OF SECTION 012100

SECTION 012500 – SUBSTITUTION PROCEDURES

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.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements: Retain subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.
 - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies 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 CSI Form 13.1A
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication, or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions 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. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

- e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES
 - j. 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 date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. 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 10 days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than **15** days prior to time required for preparation and review of related submittals.

1. 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:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed unless otherwise indicated.
- C. Substitutions for Convenience: Architect will consider requests for substitution if received within 30 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
1. 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:
 - a. 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.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.
 - j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 – 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 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue through Construction Manager 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 form included in Project Manual.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect and/or Construction Manager will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect and/or Construction Manager are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 10 days, when not otherwise specified, 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.
 - e. Quotation Form: Use forms acceptable to Architect or Construction Manager.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Construction Manager.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use form acceptable to Architect or Construction Manager.

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

1.6 CHANGE ORDER PROCEDURES

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

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect and/or Construction Manager 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 012600

SECTION 013100 – PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Coordination Drawings.
 - 2. Administrative and supervisory personnel.
 - 3. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. Related Sections include the following:
 - 1. Division 1 Section "Submittal Procedures" for Administrative and Procedural Requirements for submitting Shop Drawings.
 - 2. Division 1 Section "Closeout Procedures" for coordinating Contract closeout.

1.03 COORDINATION

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
- B. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.

2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Startup and adjustment of systems.
 8. Project closeout activities.
- E. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.04 SUBMITTALS

- A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
 - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - b. Indicate required installation sequences.
 - c. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
 2. Sheet Size: At least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
 3. Number of Copies: Submit five (5) copies where Coordination Drawings are required for operation and maintenance manuals. Architect will retain two copies; remainder will be returned. Mark up and retain one returned copy as a Project Record Drawing.
 4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.
- B. Key Personnel Names: Within fourteen (14) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.05 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
1. Include special personnel required for coordination of operations with other contractors.

1.06 PROJECT MEETINGS

- A. General: Construction Manager shall schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
1. Attendees: Construction Manager shall inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.

2. Agenda: Construction Manager shall prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Construction Manager shall record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned of including Owner and Architect, within three (3) days of the meeting.
- B. Preconstruction Conference: Construction Manager shall schedule a preconstruction conference before starting construction, at a time convenient to Prime Contractors, Owner, Construction Manager and Architect, but no later than seven (7) days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Procedures for processing field decisions and Change Orders.
 - f. Procedures for requests for interpretations (RFIs).
 - g. Procedures for testing and inspecting.
 - h. Procedures for processing Applications for Payment.
 - i. Distribution of the Contract Documents.
 - j. Submittal procedures.
 - k. Use of the premises.
 - l. Work restrictions.
 - m. Owner's occupancy requirements.
 - n. Responsibility for temporary facilities and controls.
 - o. Construction waste management and recycling.
 - p. Parking availability.
 - q. Office, work, and storage areas.
 - r. Equipment deliveries and priorities.
 - s. First aid.
 - t. Security.
 - u. Progress cleaning.
 - v. Working hours.
 3. Minutes: Construction Manager will record and distribute meeting minutes.
- C. Preinstallation Conferences: Construction Manager shall conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting.

2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. The Contract Documents.
 - b. Options.
 - c. Related requests for interpretations (RFIs).
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility problems.
 - k. Time schedules.
 - l. Manufacturer's written recommendations.
 - m. Warranty requirements.
 - n. Temporary facilities and controls.
 - o. Space and access limitations.
 - p. Regulations of authorities having jurisdiction.
 - q. Testing and inspecting requirements.
 - r. Installation procedures.
 - s. Coordination with other work.
 - t. Required performance results.
 - u. Protection of adjacent work.
 - v. Protection of construction and personnel.
 3. Construction Manager shall record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Construction Manager shall distribute minutes of the meeting to each party present and to parties who should have been present.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Construction Manager shall conduct progress meetings at biweekly intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Construction Manager, and Architect, each contractor, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule.

Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1) Review schedule for next period.
- b. Review present and future needs of each entity present, including the following:
- 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Requests for interpretations (RFIs).
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
3. Minutes: Construction Manager will record and distribute to Contractor the meeting minutes.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
- a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Daily construction reports.
 - 4. Site condition reports.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Working electronic copy of schedule file, where indicated.
 - 2. PDF electronic file.
 - 3. [2] paper copies.
- B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 - 3. Total Float Report: List of all activities sorted in ascending order of total float.
 - 4. Earnings Report: Compilation of Contractor's total earnings from the Notice to Proceed until most recent Application for Payment.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit at monthly intervals.
- G. Site Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed 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.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 - 2. Procurement Activities: Include procurement process activities for the following 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 Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. 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 under More Than One Contract: Include a separate activity for each contract.
 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 4. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 5. Work Stages: Indicate important stages of construction for each major portion of the Work.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and Contract Time.
- F. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule.
- G. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 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 the Notice to Proceed.

- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Startup Network Diagram: Submit diagram within 14 days of date established for the Notice to Proceed. Outline significant construction activities for the first 30 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 30 days after date established for the Notice to Proceed.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
 - 2. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 - 3. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
 - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing and commissioning.
 - j. Punch list and final completion.
 - k. Activities occurring following final completion.
 - 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.

3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
 2. Description of activity.
 3. Main events of activity.
 4. Immediate preceding and succeeding activities.
 5. Early and late start dates.
 6. Early and late finish dates.
 7. Activity duration in workdays.
 8. Total float or slack time.
 9. Average size of workforce.
 10. Dollar value of activity (coordinated with the schedule of values).
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
 2. Changes in early and late start dates.
 3. Changes in early and late finish dates.
 4. Changes in activity durations in workdays.
 5. Changes in the critical path.
 6. Changes in total float or slack time.
 7. Changes in the Contract Time.

2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events.

10. Stoppages, delays, shortages, and losses.
 11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Construction Work Change Directives received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial completions and occupancies.
 19. Substantial Completions authorized.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
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 final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by 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 013200

SECTION 013233 – PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Periodic construction photographs.

B. Related Sections include the following:

1. Division 1 Section "Closeout Procedures" for submitting digital media as Project Record Documents at Project closeout.

1.03 SUBMITTALS

A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same label information as corresponding set of photographs.

B. Construction Photographs: Submit two prints of each photographic view within seven days of taking photographs.

1. Format: 4-by-6-inch smooth-surface matte prints on single-weight commercial-grade photographic paper, enclosed back to back in clear plastic sleeves that are punched for standard 3-ring binder.
2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:
 - a. Date photograph was taken if not date stamped by camera.
 - b. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - c. Unique sequential identifier.
3. Digital Images: Submit a complete set of digital image electronic files with each submittal of prints as a Project Record Document on CD-ROM. Identify electronic media with date photographs were taken. Submit images that have same aspect ratio as the sensor, uncropped.

1.04 COORDINATION

A. Auxiliary Services: Cooperate with photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities, including temporary lighting required to produce clear, well-lit photographs without obscuring shadows.

1.05 USAGE RIGHTS

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in uncompressed TIFF format, produced by a digital camera with minimum sensor size of 4.0 megapixels, and at an image resolution of not less than 1024 by 768 pixels.

PART 3 - EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in filename for each image.

2. Field Office Images: Maintain one set of images on CD-ROM in the field office at Project site, available at all times for reference. Identify images same as for those submitted to Architect.

C. Preconstruction Photographs: Before commencement of demolition, take color, digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.

1. Take eight photographs to show existing conditions adjacent to property before starting the Work.

2. Take twenty photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.

3. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.

D. Periodic Construction Photographs: Take 12 color, digital photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

E. Architect-Directed Construction Photographs: From time to time, Architect will instruct photographer about number and frequency of color, digital photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.

F. Final Completion Construction Photographs: Take eight color photographs after date of Substantial Completion for submission as Project Record Documents. Architect will direct photographer for desired vantage points.

1. Do not include date stamp.

END OF SECTION 013233

SECTION 013300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 2. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 3. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.2 DEFINITIONS

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

1.3 ACTION SUBMITTALS

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

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of Architects CAD Release form.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow [7] seven 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 [7] seven days for review of each resubmittal.
- D. Options: Identify options requiring selection by Architect.
- E. Deviations: Identify deviations from the Contract Documents on submittals.
- F. Resubmittals: Make resubmittals in same form as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- G. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- H. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 ELECTRONIC SUBMITTAL PROCEDURES

A. Summary:

1. Shop drawing and product data submittals shall be transmitted to Architect in electronic (PDF) format.
2. The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
3. The electronic submittal process is not intended for color samples, color charts, or physical material samples.

B. Procedures:

1. Submittal Preparation - Contractor may use any or all of the following options:
 - a. Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor.
 - b. Subcontractors and Suppliers provide paper submittals to General Contractor who electronically scans and converts to PDF format.
 - c. Subcontractors and Suppliers provide paper submittals to Scanning Service which electronically scans and converts to PDF format.
2. Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.
3. Contractor shall transmit each submittal to Architect.
4. Architect / Engineer review comments will be made available. Contractor will receive email notice of completed review.
5. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.
6. Submit paper copies of reviewed submittals at project closeout for record purposes in accordance with Section 017700 – Closeout Procedures

C. Costs:

1. Internet Service and Equipment Requirements:
 - a. Email address and Internet access at Contractor's main office.
 - b. Adobe Acrobat (www.adobe.com), Bluebeam PDF Revu (www.bluebeam.com), or other similar PDF review software for applying electronic stamps and comments.

2.2 GENERAL SUBMITTAL PROCEDURES

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples.
 6. Submit Product Data in the following format:

- a. PDF electronic file.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 24 by 36 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
 - b. [5] Five opaque (bond) copies of each submittal. Architect will return [2] two copies.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit [2] two 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.

6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit [3] three sets of Samples. Architect will retain [2] two Sample sets; remainder will be returned.
 - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least [3] three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Submit product schedule in the following format:
 - a. PDF electronic file.
- E. Coordination Drawings Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- F. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."
- G. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."
- H. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- I. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."
- J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- K. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

- N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- P. Material Test Reports: Submit 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.
- Q. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- S. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 "Quality Requirements."
- T. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- U. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- V. Field Test Reports: Submit written reports 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.
- W. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.3 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file and [3] three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action as follows:
 1. "NO EXCEPTIONS TAKEN": Submission is in full compliance with all contract documents, or indicated deviations are acceptable.
 2. "MAKE CORRECTIONS NOTED": Submission has minor corrections not significant enough to require resubmission; noted corrections must be made in final installation.
 3. "REJECTED": Submission does not meet contract requirements; resubmission of shop drawings, which meet contract requirements, is required.
 4. "AMEND AND RESUBMIT": Resubmission is required due to the nature and/or number and corrections.
- C. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 – QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Contractor is responsible 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/Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.

1.03 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 or Construction Manager.
- C. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- D. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. 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.
- I. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five (5) 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.

1.04 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 in writing 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 in writing before proceeding.

1.05 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Description of test and inspection.
 - 3. Identification of applicable standards.
 - 4. Identification of test and inspection methods.
 - 5. Number of tests and inspections required.
 - 6. Time schedule or time span for tests and inspections.
 - 7. Entity responsible for performing tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.
- C. 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.
- D. Permits, Licenses, and Certificates: For Owner'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.

1.06 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 products that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.
- G. 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.
- H. **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.
- I. **Preconstruction Testing:** Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - f. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
 2. **Testing Agency Responsibilities:** Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.07 QUALITY CONTROL

- A. 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 Owner, unless agreed to in writing by Owner.
 2. Notify testing agencies at least twenty-four (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.

- B. **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."
- C. **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.
- D. **Testing Agency Responsibilities:** Cooperate with Architect, Construction Manager, 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.
- E. **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.
- F. **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.
- G. **Schedule of Tests and Inspections:** Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within sixty (60) days of date established for the Notice to Proceed.
 - 1. **Distribution:** Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 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 Architect.
 - 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 reference during normal working hours.

3.02 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.
- 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 014000

SECTION 014533 – CODE-REQUIRED SPECIAL INSPECTIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Code-required special inspections.
- B. Submittals.

1.02 RELATED REQUIREMENTS

- A. Section 013300 - Submittal procedures.
- B. Section 014000 - Quality Requirements.
- C. Section 016000 - Product Requirements: Requirements for material and product quality.

1.03 DEFINITIONS

- A. Code or Building Code: ICC (IBC), 2020 Building Code of New York with New York State supplements and specifically, Chapter 17 - Special Inspections and Tests.
- B. Authority Having Jurisdiction (AHJ): Agency or individual officially empowered to enforce the building, fire and life safety code requirements of the permitting jurisdiction in which the Project is located.
- C. National Institute of Standards and Technology (NIST).
- D. Special Inspection:
 - 1. Special inspections are inspections and testing of materials, installation, fabrication, erection or placement of components and connections mandated by the AHJ that also require special expertise to ensure compliance with the approved contract documents and the referenced standards.
 - 2. Special inspections are separate from and independent of tests and inspections conducted by Owner or Contractor for the purposes of quality assurance and contract administration.

1.04 REFERENCE STANDARDS

- A. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2011.
- B. AISC 360 - Specification for Structural Steel Buildings; 2010.
- C. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field; 2012.
- D. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete; 2010.
- E. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and

Construction; 2012a.

- F. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing; 2014a.
- G. ASTM E605 - Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members; 1993 (Reapproved 2011).
- H. ASTM E736 - Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members; 2000 (Reapproved 2011).
- I. ASTM E2570 - Standard Test Methods for Evaluating Water-Resistive Barrier (WRB) Coatings Used under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage; 2007.
- J. AWCI 125 - Technical Manual 12-B: Standard Practice for the Testing and Inspection of Field-Applied Thin Film Intumescent Fire-Resistance Materials; 1998.
- K. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.
- L. AWS D1.4/D1.4M - Structural Welding Code - Reinforcing Steel; 2011.
- M. ICC (IBC) - International Building Code; 2020.

1.05 SUBMITTALS

- A. See Section 013300 - Submittal procedures.
- B. Special Inspection Agency Qualifications: Prior to the start of work, the Special Inspection Agency shall:
 - 1. Submit agency name, address, and telephone number, names of full time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 - 3. Submit certification that Special Inspection Agency is acceptable to AHJ.
- C. Smoke Control Testing Agency Qualifications: Prior to the start of work, the Testing Agency shall:
 - 1. Submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 - 2. Submit documentary evidence that agency has appropriate credentials and documented experience in fire protection engineering, mechanical engineering and HVAC air balancing.
 - 3. Submit certification that Testing Agency is acceptable to AHJ.
- D. Special Inspection Reports: After each special inspection, Special Inspector shall promptly submit two copies of report; one to Architect and one to the AHJ.
 - 1. Include:
 - a. Date issued.

- b. Project title and number.
- c. Name of Special Inspector.
- d. Date and time of special inspection.
- e. Identification of product and specifications section.
- f. Location in the Project.
- g. Type of special inspection.
- h. Date of special inspection.
- i. Results of special inspection.
- j. Conformance with Contract Documents.

1.06 SPECIAL INSPECTION AGENCY

- A. Owner will employ services of a Special Inspection Agency to perform inspections and associated testing and sampling in accordance with ASTM E329 and required by the building code.
- B. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 SCHEDULE OF SPECIAL INSPECTIONS, GENERAL

- A. Frequency of Special Inspections: Special Inspections are indicated as continuous or periodic.
 - 1. Continuous Special Inspection: Special Inspection Agency shall be present in the area where the work is being performed and observe the work at all times the work is in progress.
 - 2. Periodic Special Inspection: Special Inspection Agency shall be present in the area where work is being performed and observe the work part-time or intermittently and at the completion of the work.
- B. Special inspections required by Section 1705 may not be required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents

3.2 SPECIAL INSPECTIONS FOR STEEL CONSTRUCTION

- A. Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360
- B. High-Strength Bolting Installation: Verify items listed below comply with AISC 360, Section M2.5.

1. Snug tight joints; periodic.
- C. Welding:
1. Reinforcing Steel: Verify items listed below comply with AWS D1.4/D1.4M and ACI 318, Section 3.5.2.
 - a. Verification of weldability; periodic.
 - b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames as well as boundary elements of special structural walls of concrete and shear reinforcement; continuous.
 - c. Shear reinforcement; continuous.
 - d. Other reinforcing steel; periodic.
- D. Steel Frame Joint Details: Verify compliance with approved contract documents.
1. Details, bracing and stiffening; periodic.
 2. Member locations; periodic.
 3. Application of joint details at each connection; periodic.
- E. Cold formed steel trusses spanning 60 feet or more; periodic.

3.3 SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION

- A. Reinforcing Steel, Including Prestressing of Tendons and Placement: Verify compliance with approved contract documents and ACI 318, Sections 3.5 and 7.1 through 7.7; periodic.
- B. Reinforcing Steel Welding: Verify compliance with AWS D1.4/D1.4M and ACI 318, Section 3.5.2; periodic.
- C. Design Mix: Verify plastic concrete complies with the design mix in approved contract documents and with ACI 318, Chapter 4 and 5.2; periodic.
- D. Concrete Sampling Concurrent with Strength Test Sampling: Each time fresh concrete is sampled for strength tests, verify compliance with ASTM C172/C172M, ASTM C31/C31M and ACI 318, Sections 5.6 and 5.8 and record the following, continuous:
 1. Slump.
 2. Air content.
 3. Temperature of concrete.
- E. Specified Curing Temperature and Techniques: Verify compliance with approved contract documents and ACI 318, Sections 5.11 through 5.13; periodic.
- F. Concrete Strength in Situ: Verify concrete strength complies with approved contract documents and ACI 318, Section 6.2, for the following.
- G. Formwork Shape, Location and Dimensions: Verify compliance with approved contract documents and ACI 318, Section 6.1.1; periodic.

3.8 SPECIAL INSPECTIONS FOR SMOKE CONTROL

- A. Test smoke control systems as follows:

1. Record device locations and test system for leakage after erection of ductwork but before starting construction that conceals or blocks access to system.
2. Test and record pressure difference, flow measurements, detection function and controls after system is complete and before structure is occupied.

3.9 SPECIAL INSPECTION AGENCY DUTIES AND RESPONSIBILITIES

A. Special Inspection Agency shall:

1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 2. Perform specified sampling and testing of products in accordance with specified reference standards.
 3. Ascertain compliance of materials and products with requirements of Contract Documents.
 4. Promptly notify Architect and Contractor of observed irregularities or non-conformance of work or products.
 5. Perform additional tests and inspections required by Architect.
 6. Submit reports of all tests or inspections specified.
- A. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect.
- B. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.10 CONTRACTOR DUTIES AND RESPONSIBILITIES

A. Contractor Responsibilities, General:

1. Deliver to agency at designated location, adequate samples of materials for special inspections that require material verification.
2. Cooperate with agency and laboratory personnel; provide access to the work, to manufacturers' facilities, and to fabricators' facilities.
3. Provide incidental labor and facilities:
 - a. To provide access to work to be tested or inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested or inspected.
 - c. To facilitate tests or inspections.
 - d. To provide storage and curing of test samples.
4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing or inspection services.
5. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input checked="" type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator		
2. Inspector		
3. Inspector		
4. Testing Agency		
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	<p><i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i></p>
2. Controlled Structural Fill	PE/GE	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.</i></p> <p><i>Inspect placement, lift thickness and compaction of controlled fill.</i></p> <p><i>Test density of each lift of fill by nuclear methods (ASTM D2922)</i></p> <p><i>Verify extent and slope of fill placement.</i></p>

Item	Agency # (Qualif.)	Scope
1. Mix Design	ACI-CCI ICC-RCSI	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.</i>
2. Material Certification		
3. Reinforcement Installation	ACI-CCI ICC-RCSI	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4. Welding of Reinforcing	AWS-CWI	<i>Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.</i>
5. Anchor Rods		<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
6. Concrete Placement	ACI-CCI ICC-RCSI	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
7. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).</i>
8. Curing and Protection	ACI-CCI ICC-RCSI	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>

Item	Agency # (Qualif.)	Scope
1. Plant Certification / Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	ACI-CCI ICC-RCSI	<i>Review plant operations and quality control procedures.</i>
2. Mix Design	ACI-CCI ICC-RCSI	<i>Inspect concrete batching operations and verify compliance with approved mix design</i>
3. Material Certification		
4. Reinforcement Installation	ACI-CCI ICC-RCSI	<i>Inspect size, spacing, position and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials.</i>
5. Prestress Operations	ICC-PCSI	<i>Inspect placement, stressing, grouting and protection of prestressing tendons</i>
6. Connections / Embedded Items		
7. Formwork Geometry		
8. Concrete Placement	ACI-CCI ICC-RCSI	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated .</i>
9. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).</i>
10. Curing and Protection	ACI-CCI ICC-RCSI	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
11. Erected Precast Elements	PE/SE	<i>Inspect erection of precast concrete including member configuration, connections, welding and grouting.</i>

Masonry

Required Inspection Level: 1 2

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Item	Agency # (Qualif.)	Scope
1. Material Certification		
2. Mixing of Mortar and Grout	ICC-SMSI	<i>Inspect proportioning, mixing and retempering of mortar and grout.</i>
3. Installation of Masonry	ICC-SMSI	<i>Inspect size, layout, bonding and placement of masonry units.</i>
4. Mortar Joints	ICC-SMSI	<i>Inspect construction of mortar joints including tooling and filling of head joints.</i>
5. Reinforcement Installation	ICC-SMSI AWS-CWI	<i>Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.</i>
6. Grouting Operations	ICC-SMSI	<i>Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.</i>
7. Weather Protection	ICC-SMSI	<i>Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.</i>
8. Evaluation of Masonry Strength	ICC-SMSI	<i>Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).</i>
9. Anchors and Ties	ICC-SMSI	<i>Inspect size, location, spacing and embedment of dowels, anchors and ties.</i>
10. Anchors and Ties	ICC-SMSI	<i>Inspect size, location, spacing and embedment of dowels, anchors and ties.</i>

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	AWS/AISC- SSI ICC-SWSI	<i>Review shop fabrication and quality control procedures.</i>
2. Material Certification	AWS/AISC- SSI ICC-SWSI	<i>Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes</i>
3. Open Web Steel Joists		<i>Inspect installation, field welding and bridging of joists.</i>
4. Bolting	AWS/AISC- SSI ICC-SWSI	<i>Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.</i>
5. Welding	AWS-CWI ASNT	<i>Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds.</i> <i>Ultrasonic testing of all full-penetration welds.</i>
6. Structural Details	PE/SE	<i>Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.</i>
7. Metal Deck	AWS-CWI	<i>Inspect welding and side-lap fastening of metal roof and floor deck.</i>

Spray-Applied Fire Resistant Material

Item	Agency # (Qualif.)	Scope
1. Material Specifications		
2. Laboratory Tested Fire Resistance Design	ICC-SFSI	<i>Review UL fire resistive design for each rated beam, column, or assembly.</i>
3. Schedule of Thickness	ICC-SFSI	<i>Review approved thickness schedule.</i>
4. Surface Preparation	ICC-SFSI	<i>Inspect surface preparation of steel prior to application of fireproofing</i>
5. Application	ICC-SFSI	<i>Inspect application of fireproofing.</i>
6. Curing and Ambient Condition	ICC-SFSI	<i>Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.</i>
7. Thickness	ICC-SFSI	<i>Test thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.</i>
8. Density	ICC-SFSI	<i>Test the density of fireproofing material (ASTM E605).</i>
9. Bond Strength	ICC-SFSI	<i>Test the cohesive/adhesive bond strength of fireproofing ASTM E736). Perform not less than one test for each 10,000 SF.</i>

END OF SECTION 014533

SECTION 016000 – 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 01 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 01 Section "Closeout Procedures" for submitting warranties for Contract closeout.

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, which is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, 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: Where a specific manufacturer's product is named and accompanied by the words "basis of design," 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 other named manufacturers.

1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
 2. Form: Tabulate information for each product under the following column headings:
 - a. Specification Section number and title.
 - b. Generic name used in the Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
 - h. Identification of items that require early submittal approval for scheduled delivery date.
 3. Initial Submittal: Within thirty (30) days after date of commencement of the Work, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 - a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
 4. Completed List: Within sixty (60) days after date of commencement of the Work, submit three (3) copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
 5. Architect's Action: Architect will respond in writing to Contractor within fifteen (15) days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Substitution Requests: Submit three copies 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 CSI Form 13.1A.
 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. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - i. 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.
 - j. Cost information, including a proposal of change, if any, in the Contract Sum.
 - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - l. 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 ten (10) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
 - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies 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. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
 - b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

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. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

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

8. 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. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.

6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements.
6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements.
7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system.
8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified 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.
9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
 - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color,

pattern, density, or texture from manufacturer's product line that does not include premium items.

- b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within thirty (30) days after the Notice to Proceed. 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 is compatible with other portions of the Work.
 - 8. Requested substitution has been coordinated with other portions of the Work.
 - 9. Requested substitution provides specified warranty.
 - 10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product 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. Evidence that the proposed product does not require extensive 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.

END OF SECTION 016000

SECTION 017300 – EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. General installation of products.
 - 4. Coordination of Owner-installed products.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.
 - 8. Correction of the Work.
- B. Related Sections include the following:
 - 1. Division 1 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
 - 2. Division 1 Section "Submittal Procedures" for submitting surveys.
 - 3. 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

3.01 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 sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- 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. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. 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 Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.03 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Construction Manager promptly.
- B. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- C. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

3.04 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

- C. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

3.05 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 8 feet 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.

3.06 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning 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 (27 deg C).
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- 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.
- D. 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.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. 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.

- H. 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.
- I. 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.
- J. 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.

3.07 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.08 PROTECTION OF INSTALLED CONSTRUCTION

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

3.09 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 017300

SECTION 017419 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.01 SUMMARY

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

1.02 DEFINITIONS

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

1.03 SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit three (3) copies of report. Include separate reports for demolition and construction waste. Include the following information:
 - 1. Material category.
 - 2. Generation point of waste.
 - 3. Total quantity of waste in tons.
 - 4. Quantity of waste salvaged, both estimated and actual in tons.
 - 5. Quantity of waste recycled, both estimated and actual in tons.
 - 6. Total quantity of waste recovered (salvaged plus recycled) in tons.

7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- B. Waste Reduction Calculations: Before request for Substantial Completion, submit three (3) copies of calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
- C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- G. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.04 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- B. Waste Management Conference: Conduct conference at Project site.

1.05 WASTE MANAGEMENT PLAN

- A. General: Develop plan consisting of waste identification and waste reduction work plan.[Include separate sections in plan for demolition and construction waste.] Indicate quantities by weight or volume but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.

2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

D. Forms: Prepare waste management plan on forms included at end of Part 3.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Architect and Construction Manager. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of waste management work plan. Coordinator shall be present at Project site full time for duration of Project.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 1. Distribute waste management plan to everyone concerned within five (5) days of submittal return.
 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.

3.02 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale and Donation: Not permitted on Project site.

C. Salvaged Items for Owner's Use:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Protect items from damage during transport and storage.

3.03 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Contractor.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

3.04 RECYCLING DEMOLITION WASTE

- A. Asphaltic Concrete Paving: Grind asphalt to maximum 1-1/2-inch size.
- B. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.
- C. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
 1. Pulverize concrete to maximum 1-1/2-inch size.
- D. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
 1. Pulverize masonry to maximum 3/4-inch size.
 2. Clean and stack undamaged, whole masonry units on wood pallets.
- E. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- F. Metals: Separate metals by type.
 1. Structural Steel: Stack members according to size, type of member, and length.
 2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- G. Asphalt Shingle Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- H. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- I. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
 1. Separate suspension system, trim, and other metals from panels and tile and sort with other metals.
- J. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
 1. Store clean, dry carpet and pad in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.

- K. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- L. Plumbing Fixtures: Separate by type and size.
- M. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- N. Lighting Fixtures: Separate lamps by type and protect from breakage.
- O. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.
- P. Conduit: Reduce conduit to straight lengths and store by type and size.

3.05 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
 - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - 2. Polystyrene Packaging: Separate and bag materials.
 - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- B. Site-Clearing Wastes: Chip brush, branches, and trees at landfill facility.
- C. Wood Materials:
 - 1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
 - 2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- D. Gypsum Board: Stack large clean pieces on wood pallets and store in a dry location.
 - 1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.06 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
 - C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
 - D. Disposal: Transport waste materials and dispose of at designated spoil areas on Owner's property.
 - E. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 017419

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Refer to Article 15 of the General Conditions for additional requirements.

1.02 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 "Photographic Documentation" for submitting Final Completion construction photographs and negatives.

1.03 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. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. 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.
 - 4. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 5. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 6. Complete final cleaning requirements, including touchup painting.

7. 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. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.04 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment.
 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. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.05 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. 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 items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

2. 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.

1.06 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 Final 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 (215-by-280-mm) paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.01 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

3.01 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. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Clean exposed exterior 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.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Remove labels that are not permanent.
 - h. 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.
- 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 017700

SECTION 017823 – OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.02 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
 - 2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return two copies.
- C. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect and Commissioning Authority will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's and Commissioning Authority's comments. Submit copies of each corrected manual within 15 days of

receipt of Architect's and Commissioning Authority's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.01 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information.
- B. 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.
- C. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Construction Manager.
 - 7. Name and contact information for Architect.
 - 8. Name and contact information for Commissioning Authority.
 - 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 10. Cross-reference to related systems in other operation and maintenance manuals.
- D. 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.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

- F. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-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. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. 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 storage media for computerized electronic equipment.
 4. 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.

2.02 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.

- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
1. Fire.
 2. Flood.
 3. Gas leak.
 4. Water leak.
 5. Power failure.
 6. Water outage.
 7. System, subsystem, or equipment failure.
 8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
1. Instructions on stopping.
 2. Shutdown instructions for each type of emergency.
 3. Operating instructions for conditions outside normal operating limits.
 4. Required sequences for electric or electronic systems.
 5. Special operating instructions and procedures.

2.03 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, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor is delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.

7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.
 8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.04 PRODUCT MAINTENANCE MANUALS

- 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.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- 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.

2.05 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- 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 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 video recording, 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.
- 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. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.01 MANUAL PREPARATION

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- 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.
- 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 include 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.
- 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.
- F. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 – PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 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.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. 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.

1.03 SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one (1) set(s) of marked-up Record Prints.
 - 2. Number of Copies: Submit copies of Record Drawings as follows:
 - a. Final Submittal: Submit one (1) set(s) of marked-up Record Prints, one (1) set(s) of Record Transparencies, and four (4) copies printed from Record Transparencies. Print each Drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit one copy (1) of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit five (5) copies 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

2.01 RECORD DRAWINGS

- A. Record Prints: Maintain one set 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. 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. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. 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. Record Transparencies: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected transparencies of the Contract Drawings and Shop Drawings.

1. Incorporate changes and additional information previously marked on Record Prints. Erase, redraw, and add details and notations where applicable.
 2. Refer instances of uncertainty to Architect for resolution.
 3. Owner will furnish Contractor one set of transparencies of the Contract Drawings for use in recording information.
 4. Print the Contract Drawings and Shop Drawings for use as Record Transparencies. Architect will make the Contract Drawings available to Contractor's print shop.
- C. Record CAD Drawings: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected CAD Drawings of the Contract Drawings, as follows:
1. Format: Same CAD program, version, and operating system as the original Contract Drawings.
 2. Format: DWG Version, operating in Microsoft Windows operating system.
 3. Incorporate changes and additional information previously marked on Record Prints. Delete, redraw, and add details and notations where applicable.
 4. Refer instances of uncertainty to Architect for resolution.
 5. Architect will furnish Contractor one set of CAD Drawings of the Contract Drawings for use in recording information.
 - a. Architect makes no representations as to the accuracy or completeness of CAD Drawings as they relate to the Contract Drawings.
- D. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- E. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.

3. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.02 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
 5. Note related Change Orders and Record Drawings where applicable.

2.03 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.

2.04 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

3.01 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy 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 and DPMC Representative reference during normal working hours.

END OF SECTION 017839

SECTION 019113 – GENERAL COMMISSIONING 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.
- B. OPR and BoD documentation prepared by Owner and Architect contains requirements that apply to this Section.

1.2 SUMMARY

- A. This Section includes general requirements that apply to implementation of commissioning without regard to systems, subsystems, and equipment being commissioned.

1.3 DEFINITIONS

- A. BoD: Basis of Design.
- B. CxA: Commissioning Authority.
- C. OPR: Owner's Project Requirements.
- D. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.
- E. TAB: Testing, Adjusting, and Balancing.

1.4 COMMISSIONING TEAM

- A. Members Appointed by Contractor(s): Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of each Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the Engineer/Architect/Project Management Firm.
- B. Members Appointed by Owner:
 - 1. CxA: The designated person, company, or entity that plans, schedules, and coordinates the commissioning team to implement the commissioning process. In this project, Architect/Engineer/Project Management Firm will oversee the commissioning process.
 - 2. Representatives of the facility user and operation and maintenance personnel.
 - 3. Architect and engineering design professionals.

1.5 OWNER'S RESPONSIBILITIES

- A. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities including, but not limited to, the following:
 - 1. Coordination meetings.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Testing meetings.
 - 4. Demonstration of operation of systems, subsystems, and equipment.
- B. Provide utility services required for the commissioning process.
- C. Provide the BoD documents, prepared by Architect and approved by Owner, to each Contractor for use in developing the commissioning plan, systems manual, and operation and maintenance training plan.

1.6 CONTRACTOR'S RESPONSIBILITIES

- A. Provide utility services required for the commissioning process.
- B. Each Contractor shall assign representatives with expertise and authority to act on behalf of the Contractor and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
 - 1. Participate in construction-phase coordination meetings.
 - 2. Participate in maintenance orientation and inspection.
 - 3. Participate in operation and maintenance training sessions.
 - 4. Participate in final review at acceptance meeting.
 - 5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.
 - 6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
 - 7. Review and approve final commissioning documentation.
- C. Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
 - 1. Participate in construction-phase coordination meetings.
 - 2. Participate in maintenance orientation and inspection.
 - 3. Participate in procedures meeting for testing.
 - 4. Participate in final review at acceptance meeting.
 - 5. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to Architect/Engineer/Project Management Firm for

incorporation into the commissioning plan. Update schedule on a weekly basis (or as agreed) throughout the construction period.

6. Provide information to the Architect/Engineer/Project Management Firm for developing construction-phase commissioning plan.
7. Participate in training sessions for Owner's operation and maintenance personnel.
8. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the Architect/Engineer/Project Management Firm, as specified in Division 1 Section "Operation and Maintenance Data."
9. Provide technicians who are familiar with the construction and operation of installed systems and who shall develop specific test procedures and participate in testing of installed systems, subsystems, and equipment.

1.7 ARCHITECT/ENGINEER/PROJECT MANAGEMENT FIRM RESPONSIBILITIES

- A. Organize and lead the commissioning team.
- B. Review and comment on submittals from each Contractor for compliance with the OPR, BoD, Contract Documents, and construction-phase commissioning plan. Review and comment on performance expectations of systems and equipment and interfaces between systems relating to the OPR and BoD.
- C. At the beginning of the construction phase, conduct an initial construction-phase coordination meeting for the purpose of reviewing the commissioning activities and establishing tentative schedules for operation and maintenance submittals; operation and maintenance training sessions; TAB Work; and Project completion.
- D. Observe and inspect construction and report progress and deficiencies. In addition to compliance with the OPR, BoD, and Contract Documents, inspect systems and equipment installation for adequate accessibility for maintenance and component replacement or repair.
- E. Prepare Project-specific test and inspection procedures and checklists.
- F. Schedule, direct, witness, and document tests, inspections, and systems startup.
- G. Compile test data, inspection reports, and certificates and include them in the systems manual and commissioning report.
- H. Certify date of acceptance and startup for each item of equipment for start of warranty periods.
- I. Review Project Record Documents for accuracy. Request revisions from Contractor to achieve accuracy. Project Record Documents requirements are specified in Division 1 Section "Project Record Documents."
- J. Review and comment on operation and maintenance documentation and systems manual outline for compliance with the OPR, BoD, and Contract Documents. Operation and maintenance documentation requirements are specified in Division 1 Section "Operation and Maintenance Data."
- K. Prepare operation and maintenance training program. Operation and maintenance training is specified in Division 23.

1.8 QUALITY ASSURANCE

- A. Instructor Qualifications: Factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.
- B. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 OPERATION AND MAINTENANCE TRAINING REQUIREMENTS

- A. Training Preparation Conference: Before operation and maintenance training, Architect/Engineer/Project Management Firm shall convene a training preparation conference to include Owner's operation and maintenance personnel, Contractor, and subcontractors. In addition to requirements specified in Division 23 perform the following:
 - 1. Review the BoD.
 - 2. Review installed systems, subsystems, and equipment.
 - 3. Review instructor qualifications.
 - 4. Review instructional methods and procedures.
 - 5. Review training module outlines and contents.
 - 6. Review course materials (including operation and maintenance manuals).
 - 7. Inspect and discuss locations and other facilities required for instruction.
 - 8. Review and finalize training schedule and verify availability of educational materials, instructors, audiovisual equipment, and facilities needed to avoid delays.
 - 9. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.
- B. Training Modules: Develop an instruction program that includes individual training modules for each system, subsystem, and equipment as specified in Division 23.

END OF SECTION 019113

SECTION 114000 - FOOD SERVICE EQUIPMENT

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Work of this Section shall conform to the requirements of the Contract Documents including drawings and general provisions of the Contract, General and Supplementary Conditions and Division 01 Specification Sections.

1.02 BIDS

- A. Unless otherwise noted, Kitchen Equipment Contractor (KEC) is a sub-contractor to the General Contractor (GC) and is to provide and install all items listed in this section and as detailed on food service drawings.
- B. Any denotation to specific trade responsibility (i.e., Kitchen Equipment Contractor (KEC), Electrical Contractor (EC), Plumbing Contractor (PC), etc.) mentioned shall fall under the scope of the General Contractor (GC). The GC is responsible to hire all necessary sub-contractors.
- C. Raymond/ Raymond Associates is herein identified as the Food Service Consultant.
- D. Bids must be based on equipment of manufacturers specified; no substitution will be accepted after award of Contract.
- E. Substitutions: When a product or material is specified by name and or model number, as noted in these specifications, such specifications establishes the standard type and quality considered most satisfactory for the particular purpose in the building. The bid proposal therefore should be based thereon, so that all bidders bid under the same conditions. Another product or material of the same type that meets the requirements may be submitted for consideration as a substitute only under the following conditions:
 - 1. Requests for substitution must be submitted in writing at least ten (10) days before the date set for the receipt of bids for review and approval by the design professional. If the substitution is found to be equivalent, all bidders will be notified prior to the receipt of bids.
 - 2. In providing substitution requests, the bidder must prove equivalence of the substitution and furnish detailed specifications and catalog cuts or drawings. Failure to identify exceptions or deviations from equipment specified must be interpreted to indicate that the product offered complies with the specification in every respect.
- F. Owner, Architect and Food Service Consultant reserves right to waive any informality or reject any or all bids and any parts thereof, or to accept that bid as a whole or part that in his judgment is for the best interest of Owner. All bids to have on Contractor's letterhead itemized cost of each item of equipment, otherwise bid will be rejected.
- G. Custom fabrication, millwork, equipment, etc. must be built by a company continually in business for at least a 5-year period.
- H. Contract documents convey a method of construction for custom fabrication; however, this may or may not be the appropriate method based on selected fabricators industry knowledge and standards. It will be the responsibility of the selected fabricator to interpret and apply appropriate methods of construction for full functionality of custom fabrication.

1.03 WORK INCLUDED

- A. KEC shall coordinate with other trades or sub-contractors in order that whole installation may result in the highest grade possible.
- B. KEC shall provide and install only such valves, traps, faucets, shut-offs, reducing pressure valves, relief valves and other specialty items required within equipment and as hereinafter specified.
- C. KEC shall make all necessary cut-outs and knock-outs where required on equipment to accommodate electrical receptacles, switches or other electrical outlets and equipment, together with such cut-outs as required for passage of gas or plumbing piping, etc.
- D. KEC shall stack and remove rubbish waste material, crating, etc., resulting from work and keep the premises clean at all times. Upon completion of the installation, thoroughly and finally clean all equipment ready for use.

1.04 POWER AVAILABLE

- A. Electric Voltage: 120/208/480 volt, 60 cycle, 1 & 3 ph.
- B. Water Pressure: Typical Food Service Equipment range 25 to 90 PSI, if required, pressure reducing valves provided by Plumbing Contractor.
- C. Water Temperature(s):
 - 1. 110°-120° Fahrenheit max at hand washing sinks, work sinks and preparation sinks.
 - 2. 120°-140° Fahrenheit max at 3-compartment pot sink, dishwashers and hose reel assembly.
 - 3. 110°-120° Fahrenheit max at cooking equipment with faucet assembly.
- D. Gas Pressure: Typical Food Service Equipment range 5" W.C. to 10" W.C., if required, a gas pressure reducing valve at main feed, prior to equipment connection, to be provided by Plumbing Contractor.

1.05 GENERAL CHARACTERISTICS OF EQUIPMENT

- A. Electrically Operated
 - 1. Electrically operated equipment to be listed by Underwriters Labs., Inc.
 - 2. Motors: Up to and including 3/4 horsepower, shall be 120/60/1.
 - 3. Motors: Over 3/4 horsepower, 208/60/3, unless otherwise indicated.
 - 4. Ranges, food warmers, etc., over 2.0 kW, 208/60/1 or 208/60/3, unless otherwise indicated.
 - 5. Electrically heated equipment, etc., 2.0 kW and under, 120/60/1.
 - 6. 1 ph. electrical plug-in units with 3 wire cords; 3 wire cap.

7. 3 ph. electrical plug-in units with 4 wire cords; 4 wire cap.
 8. Motor driven equipment: equipped with starting switch.
 9. Motors: equipped with overload protection.
 10. Wiring on fixtures, including operating switches and pilots, furnished by Kitchen Equipment Contractor.
- B. Submit in writing to Architect and Food Service Consultant for approval, schedule showing proposed electrical characteristics of each piece of equipment and disconnect means provided.
- C. Punch holes for and install hood and walk-in cooler/freezer lights and concealed conduits. The interconnection of same, including control switch, wiring, inter-wiring between sections, etc., by Electrical Contractor.

1.06 WORK EXCLUDED FROM THIS DIVISION

- A. The following work is to be performed by other trades or sub-contractors and is not the responsibility of the Kitchen Equipment Contractor. The GC is responsible to hire all necessary sub-contractors.
1. Electrical Contractor
 - a. Make connections to all food service equipment as shown.
 - b. Furnish disconnect switches.
 - c. Interconnecting of all exhaust hood lights, switches, control packages, interfaces, etc. including inter-wiring between sections of exhaust hoods.
 - d. Interconnecting of control switches as required on equipment shown, and all other components which come as part of any equipment shown on plan.
 - e. Interconnecting of any equipment, including, but not limited to, walk-in coolers/ freezers monitoring, exhaust hood monitoring and/ or fire protection monitoring with building management systems.
 - f. Review all manufacturer approved installation methods/ diagrams and comply for proper installation of equipment being furnished.
 2. Plumbing Contractor
 - a. Make hot and cold water, waste and gas connections to all kitchen equipment shown, furnishing all necessary shut-offs, traps, backflow preventers, vacuum breakers, grease traps, drain line runs, etc.
 - b. Install all faucets, pot fillers, filters and pressure regulators as furnished by Kitchen Equipment Contractor.
 - c. Interconnecting of any and all other components that come as part of any other equipment shown.
 - d. Provide floor drains and floor sinks where shown and indirect piping to floor drains and floor sinks as indicated on drawings.

- e. Review all manufacturer approved installation methods/ diagrams and comply for proper installation of equipment being furnished.
- 3. Ventilation Contractor
 - a. Furnish size, shape and location of vent collars for exhaust hood and make connections to these collars.
- 4. General Contractor
 - a. Provide and/or coordinate all work to the floors, walls and ceilings of the space.
 - b. Provide wall blocking where required and as indicated on food service drawings.

1.07 SUB-CONTRACTORS TO KITCHEN EQUIPMENT CONTRACTOR

- A. Fire Protection Contractor for the wet chemical protection system within exhaust hood systems only and Refrigeration Contractor for the remote refrigeration packages for walk-in coolers/ freezers, rack systems, etc. are typical sub-contractors to the Kitchen Equipment Contractor.
- B. KEC to provide the name and addresses of all sub-contractors furnished to Architect/Owner and Food Service Consultant at time of submitting shop drawings. Selection of sub-contractors must be approved by them; and if in their judgment any fail to prosecute work in strict accordance with drawings and contract, after due notice from Owner or his agent, shall discharge same, but this in no way releases Kitchen Equipment Contractor from his obligations and responsibility under the contract.
- C. Every sub-contractor bound by terms and provisions of the contract so far as applicable to his work. Nothing contained herein shall create any contractual relations between any sub-contractor and Owner.
- D. Kitchen Equipment Contractor fully responsible to Owner for acts and omissions of his/ her sub-contractors.

1.08 SHOP DRAWINGS, ETC.

- A. Immediately upon award of Contract and within 4 weeks, submit to Architect/Owner and Food Service Consultant, drawings for approval. Submit 1/4" scale rough-in drawings showing locations of plumbing and electrical connections with all requirements indicated at point of connection; use of a legend or numbered connection plan will be cause for drawing rejection. Prior to fabrication, submit to Architect for approval 1/2" scale shop drawings showing plan, elevations and isometric views covering all items of work. Drawings to show dimensions and details of construction, installation and relations to adjoining and related work where same requires cutting or close fitting. Show reinforcement, anchorage, etc., required for complete installation. After correction and approval of above, submit sets for record, then afterwards as many additional copies as required by client.
- B. Submit in same manner as above, drawings showing masonry bases, depressed floors, positions of walls, requirements for ceiling hangers, wall blocking, and any other special conditions necessary for complete and correct correlation of various trades for satisfactory installation of all equipment shown on drawings.

- C. Manufacturer's names, cuts, descriptive data, analysis of tests, rated capacities and other information necessary for approval of standard manufactured articles and equipment furnished to Architect/Owner and Food Service Consultant for approval before ordering or purchasing. This submission made in same manner as above. All cuts marked with item number, mechanical characteristics, accessories furnished and bound in folders.

1.09 GENERAL

- A. No machine or equipment acceptable from any manufacturer not having had equipment of approximately the same type and design as that specified operating successfully for at least 5 years. Machines installed for test purposes shall not come within the category of successful commercial operation.
- B. Architect/Owner and/or Food Service Consultant privileged to inspect material and fabrication at Kitchen Equipment Contractor's or its sub-contractors factory at any time.
- C. Before proceeding with shop work, Kitchen Equipment Contractor to verify all measurements at premises. Where required dimensions are not immediately obtainable and delay in waiting for these dimensions would cause work to be seriously delayed, the matter shall be referred to Architect for a decision. In obtaining measurements, Kitchen Equipment Contractor shall consider work requirements of other trades and equipment designed and fabricated to provide necessary clearance for surrounding and adjoining work.
- D. Kitchen Equipment Contractor responsible for making any and all necessary adjustments to complete his work in a workmanlike manner, as approved by Architect/Owner.
- E. Dimensions as indicated on drawings and specifications are approximate and are to be adjusted if and where necessary to suit job conditions and field measurements.
- F. Tops of tables, shelves, tops and exterior panels of cabinets, counters, doors, drainboards, etc., to be constructed of a single sheet of metal. Where size of equipment requires more than 1 sheet of metal, sheets butt joined with joints continuously welded full length. No joints less than 18" from an edge or end of a piece of equipment. In addition, all joints shall have battens or stiffeners welded to jointed material, ground smooth and polished.
- G. Appliances of rigid construction free from objectionable vibration and quiet in operation.
- H. Electrical heating elements shall conform to latest standards of National Electrical Manufacturer's Association and Underwriters Labs., Inc., where applicable standards have been set up by such agencies.
- I. Motors of ample power to operate machines for which designated under full load operating conditions without exceeding nameplate ratings. Horsepower requirements on driven equipment determined by manufacturer, based on normal operation of maximum capacity.
- J. Motors drip-proof, splash-proof or totally enclosed type, having two-hour duty cycle and ball bearings (except small timing motors which may have sleeve bearings). All motors shall have windings impregnated to resist moisture. Motors located where adjacent to deposits of dust, lint, etc., totally enclosed type.
- K. It is the responsibility of the Kitchen Equipment Contractor to supply and mount all electrical outlets, switches, controls, etc. within table/counter back splashes, aprons, panels, etc. and to provide stainless steel cover plates as required. Furthermore, it is the responsibility of the Electrical Contractor, in coordination with the Kitchen Equipment Contractor, to make

final interconnections within table/counter interior to junction boxes, outlets, switches, controls, etc. for equipment indicated.

1.10 STAINLESS STEEL (S.S.)

- A. Where S.S. is specified, it shall be Type 304, nickel bearing iron alloy, containing approximately 17.0% to 19% chromium, 8% to 10% nickel, not more than 0.2% carbon, and not more than 2.0% of other alloying elements; designed being austenitic (non-magnetic).
- B. S.S. free from scale with all surfaces polished to a high commercial finish. All welding and exposed welds hereinafter specified, must be ground down and polished smooth to a #4 finish so that no evidence of welding will appear. Unexposed welds on underside of counter or tables ground smooth and treated with an acid solution to remove weld discoloration and oxidization and to arrest corrosion.
- C. Undersides of all counters, work tables, sinks, drain boards, etc., after fabrication, to have one (1) heavy coat of sound deadening material applied as allowed by local codes.
- D. Gauges for sheet iron and sheet metal, U.S. Standard.
- E. Rivets, welds, bolts, screws, nuts and washers to be steel except where brass or S.S. is fastened, in which case they shall be brass or S.S., respectively. Where dissimilar metals are fastened, welds, bolts, rivets, screws, nuts and washers, highest grade metal. Spacing and extent of welds, rivets, bolts and screws such as to insure suitable fastening and prevent bulging of metals fastened.

1.11 SANITATION

- A. All custom built equipment constructed in accordance with standard No. 2, 4 & 7 of National Sanitation Foundation Testing Laboratory, manufactured by a company approved by N.S.F. and carry their stamp of approval. Kitchen Equipment Contractor must have "Registered" numbered seal of N.S.F. approval.

1.12 OPERATING INSTRUCTIONS

- A. Kitchen Equipment Contractor shall leave all items of equipment in good, operating condition and furnish the services of a "qualified" competent manufacturer's representative to instruct Owner's employees in proper use and care of equipment. Representative on call for as long a period as is necessary to assure Owner that such instruction is thoroughly understood.
- B. Kitchen Equipment Contractor shall be responsible for scheduling of equipment demonstrations and/or training and shall provide a detailed list of expected dates, times and manufacturer's representative to be present (in attendance) for each piece of equipment.
- C. Kitchen Equipment Contractor or his qualified manufacturer's representative, thereafter, shall make all necessary calls during warranty period.

1.13 SAMPLES

- A. After Award of Contract, when requested, Kitchen Equipment Contractor shall supply Architect with samples of fabricated equipment, such as corner of table with a rolled or inverted "V" edge, corner of dish table, overshef, drawer assembly, table leg with foot and gusset, or as specifically requested.

1.14 GUARANTEE

- A. Kitchen Equipment Contractor shall guarantee, as part of the bid and/or contract, workmanship, material and equipment for a period of 1 year from date of equipment final install and project turnover to Owner and shall remedy any defect due to faulty workmanship or materials which may appear within guarantee period.
- B. Manufacturer's operation and maintenance manuals on equipment, etc., turned over to the Owner in duplicate, bound in a folder and marked accordingly.

1.15 EQUIPMENT CONSTRUCTION AND STANDARDS

- A. Where initials S.S. are used, they refer to "stainless steel;" C.P. refers to "chrome plated;" N.I.C. refers to "not in contract;" G.I. refers to "galvanized iron;" F.D. refers to "floor drain", and F.S. refers to "floor sink."

1.16 WASTES AND OVERFLOWS

- A. Sinks to have the following waste and overflow assemblies:
 - 1. For 1-1/2" NPT: Fisher model 74043 or approved alternate. Lever handle waste outlet with overflow assembly, 3-1/2" sink opening, self-centering stainless steel face flange with flat strainer, 12 gpm max flow rate, stainless steel lever handle with ball, overflow head with stainless steel faceplate and chrome plated cast red brass drain body.
 - 2. For 2" NPT: Fisher model 74043 or approved alternate. Lever handle waste outlet with overflow assembly, 3-1/2" sink opening, self-centering stainless steel face flange with flat strainer, 12 gpm max flow rate, stainless steel lever handle with ball, overflow head with stainless steel faceplate and chrome plated cast red brass drain body.

1.17 WATER INLET LOCATION

- A. Located in all cases above the positive water level to prevent siphoning of liquid into water system. Wherever conditions require water inlet below such level, a suitable type of vacuum breaker shall be placed on fixture and form part of same to prevent such siphoning.
- B. All faucets furnished by Kitchen Equipment Contractor as specified. Traps furnished by Plumbing Contractor.

1.18 PITCH AND DRAINAGE

- A. Wherever a fixture is used with waste or drain outlet, surface shall have distinct pitch towards outlet. Drainboards and tables that contain or adjoin sinks shall have a definite pitch towards sinks. Where necessary, surfaces creased and grooved to give a definite pitch.

1.19 SINKS

- A. #14 gauge S.S. interior corners rounded to 1" radius horizontally and vertically, forming a cove in bottom. All joints butt edged. Sink sizes given, inside measurements.

- B. Bottom of each compartment creased to center and fitted with a rotary drain as described in section 1.16, hereinbefore specified. Waste lever not to protrude beyond body of sink. Sinks to have overflows installed by Kitchen Equipment Contractor.
- C. Overflow to consist of 1-1/2" chrome plated brass strainer plate, fitted in back of each compartment at proper level directly connected to waste outlet with 1-1/2" chrome plated brass pipe.
- D. Back of sink extended integrally approximately 12" above working level, back 2-1/4" on 45° angle towards rear and then flanged down 1" and punched to accommodate faucets.
- E. Front and both ends, unless otherwise specified and shown, finished on top edge, 3" above working level, with 1-1/2" diameter, 180° welded integral roll. Exterior corners rounded to a 2-1/2" radius, all integrally welded.
- F. Sinks and drainboards finished on front and back edges only and left with straight edge on ends, so that drainboards may be welded thereto, forming integral units with top edge of rolled rim curbing formed on one horizontal plane across front to unit though surfaces of drainboards pitched to sinks.
- G. Multiple compartment sinks divided with double wall #14 gauge S.S. partitions, all corners rounded same as corners in sinks, continuously welded in place.
- H. Back, bottom and front of one continuous piece with no overlapping joints or open spaces between compartments.

1.20 SINK BOWL BUILT INTO TABLE TOP

- A. Sink constructed integral with table top #14 gauge S.S. having all interior corners coved vertically and horizontally forming a cove in bottom. To have overflow, lever waste outlet, etc., as hereinbefore specified for sinks in spec section 1.19.
- B. All joints butt edged and welded, ground and polished, so that no evidence of welding will appear. All sink sizes inside measurements. Table top where shown, punched to receive deck type combination faucets, provided by Kitchen Equipment Contractor.

1.21 FAUCET AND BASKET DRAIN ASSEMBLY

- A. Sinks to have the following faucet assemblies:
 1. 3-Compartment Sink, Potwash:
 - a. 1 ea. Fisher model 74306 or approved alternate. Pre-Rinse assembly with 1.3 gpm flow rate or less, splash/ wall mount, 8" centers, add-on faucet 12" stainless steel tubular swing spout with 4" wrist blade handles, 36" flexible gooseneck hose with spray head, stainless steel spring with wall bracket, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Deck mount assembly model 75485.
 - b. 1 ea. Fisher model 60798 or approved alternate. Faucet with 2.2 gpm flow rate or less, splash/ wall mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Deck mount assembly model 57665.
 2. 2-Compartment Sink, Preparation:

- a. 1 ea. Fisher model 57665 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 60798.
3. Work Sink (Built-in, Welded-In):
- a. 1 ea. Fisher model 57665 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 8" centers, 12" stainless steel tubular swing spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 60798.
4. Hand Sink:
- a. 1 ea. Fisher model 58696 or approved alternate. Faucet with 2.2 gpm flow rate or less, deck mount with 4" wrist blade handles, 4" centers, 6" stainless steel swivel gooseneck spout, compression valves, 1/2" NPT female inlets, ADA compliant, NO LEAD and NSF approved. Splash/ wall mount assembly model 62650.
- B. All plumbing fixtures shall be certified CSA, ASME A112.18.1/CSA B125.1, AB1953/HSC 116875, Vermont Bill S152, NSF/ANSI 61 sec 9, annex F and G, NSF/ANSI 372 low lead content, ASTM F2324.

1.22 DRAINBOARDS

- A. #14 gauge S.S. full width of sink carried up approximately 12" at back and where adjacent to wall and finished same as heretofore described for back of sink, and having 3" high curbing at front and ends not adjacent to walls and finished with integral 1-1/2" diameter 180° roll, unless otherwise specified.
- B. Drainboards continuously welded to sinks.
- C. Drainboards 30" long or less shall have 1-1/2" #16 gauge S.S. tubular braces secured at underside near front and welded to S.S. gusset at leg anchor. All others to have legs and cross bracing with full length and width undershelf as specified for tables.

1.23 TABLES WITH S.S. TOPS

- A. Tops of #14 gauge S.S. 1 piece construction with all edges turned down into 2" integral 180° roll with all corners rounded to 2" radius forming a bullnosed corner. Corner welded and polished smooth.
- B. Table tops thoroughly cross braced with 4" x 1" S.S. channel stiffeners #14 gauge welded to underside. All cross braces spaced not over 24" on center.
- C. Table tops adjoining walls or adjacent equipment carried up approximately 6" and returned 1", down 1" at top and ends. Intersections of table top and raised edge coved to 1" radius. Where backsplash is exposed, it shall have finished S.S. back.
- D. It is the responsibility of the K.E.C. to supply and mount all electrical outlets, switches, controls, etc. within table/counter back splashes, aprons, panels, etc. and to provide S.S. cover plates as required. Furthermore, it is the responsibility of the Electrical Contractor, in coordination with the Kitchen Equipment Contractor, to make final interconnections

within table/counter interior to junction boxes, outlets, switches, controls, etc. for equipment indicated, if required.

1.24 LEGS AND CROSSRAILS

- A. 1-5/8" O.D. #14 gauge S.S. tubular-type with S.S. bullet shaped feet having minimum vertical adjustment of 1-1/2" without showing threading or adjusting bolts. Feet fully enclosed on bottom. Adjustment of feet by means of a threaded shank attached to foot and screwed into a properly secured threaded member inside of leg. Construction of leg such that it shall fit over shank of foot so no liquid or other material can work their way into legs or foot.
- B. Tops of legs attached to enclosed conical gussets of heavy gauge S.S. Gussets welded to #14 gauge S.S. 4" x 1" channels to underside on which they appear. Crossrails 1-1/2" O.D. #14 gauge S.S. coped and welded to legs approximately 10" A.F.F. or as specified.

1.25 OVERSHELF - TABLE TYPE

- A. #16 gauge polished S.S. with all edges turned down and finished in a 1-1/2" diameter 180° roll - corners bullnosed, welded 1 piece construction.
- B. Shelves supported by 1" O.D. #14 gauge S.S. tubular uprights, tapered at top and flared at bottom, secured to table top with concealed inner tie rods, bolts and nuts. Uprights spaced approximately 42" on center not to interfere with table top proper. When uprights are located in other areas in addition to each end of table then they shall be cantilevered.

1.26 OVERSHELF - WALL TYPE

- A. #16 gauge polished S.S. with back edge turned up 2", remaining ends turned down in 1-1/2" diameter 180° roll with corners bullnosed welded, ground and polished.
- B. Shelves supported by #12 gauge S.S. cantilever brackets. Shelf spaced 1" from walls when in place and secured to same with C.P. toggle bolts. Undersides secured to brackets with concealed welded studs, nuts and washers. Brackets spaced approximately 42" on center.

1.27 UNDERSHELVES

- A. #16 gauge polished S.S. full length and width of table with all edges turned down into 2" wide channel. In way of table legs, shelf notched to fit contour of legs and fitted to same in neat, workmanlike manner to eliminate unsanitary crevices, fully welded, ground and polished.
- B. Undershelves reinforced on underside with welded 4" x 1" longitudinal channels of #14 gauge S.S. where applicable. All signs of welding on shelf surface removed.

1.28 DRAWERS

- A. Of #18 gauge S.S. all interior corners coved to a 1" radius both vertically and horizontally. All welds ground and polished to a uniform finish.
- B. Front of #14 gauge polished S.S. and will extend on both sides of drawer body to conceal slides, corners welded, ground and polished. Space between drawer front and body fully enclosed at bottom, back and both sides by means of a #20 gauge S.S. filler, spot welded to drawer front and body, to provide a fully sealed, vermin-proof enclosure. Drawer front

provided with a 5" C.H.G. # P46-1010 S.S. pull handle fastened in place by means of a concealed screw.

- C. Drawer slides of #14 gauge S.S. fitted with 4 case hardened ball bearing rollers. Track attached to drawer is to have upper edge channel shaped to fit contour of roller rim to provide a positive drawer guide and prevent jarring. This drawer track firmly spot-welded to body. Outer track provided with auto stops to lock without the use of tools.
- D. Where specified, drawer provided with removable synthetic carving board. Carving board is to slide into enclosure under drawer made of #14 gauge S.S. and extending across underside of carving board, with both sides turned up and welded to slide assembly. The 2 sides provided with #14 gauge S.S. angles with stops at rear fastened in place 1/8" above top surface of carving board to provide guide and storage compartment when carving board is not in use. Carving board is to measure approximately 21" x 21" x 1" thick.
- E. Tool drawer 20" x 20" x 5" deep, bread drawer 20" x 20" x 10" deep. All drawers to have 4 pin paracentric keyed-alike built-in locks same as sliding and hinged doors. C.P. where exposed.

1.29 POT AND PAN RACKS AND CEILING HANGERS

- A. Unit 24" wide, of length as shown, of 2" x 1/4" S.S. bar throughout. Outer rail to have fully rounded ends of 1 piece all welded construction. Center rail located 12" below outer rail and fastened to same with V-shaped braces of 2" x 1/4" S.S. bar. All joints continuous welds. V-shaped braces spaced not over 60" on center. Racks fitted with removable sliding type S.S. pot hooks spaced 9" on center.
- B. Unit hung from iron structure, ceiling or slab by 1" O.D. #14 gauge S.S. tubing. It shall be flattened, rounded with ends fully welded and fastened to rack by 3/8" round head screws with cap nuts and lock-washers. Top of tubular ceiling hanger welded to #12 gauge S.S. disc approximately 4" diameter that in turn anchors to joists above. Ceiling hangers over 60" in length to have diagonal sway braces of 1" O.D. S.S.
- C. Proper anchorages, etc., installed in iron structure, ceiling joists or slab by Kitchen Equipment Contractor prior to final finish of ceiling. Top rail of unit 90" A.F.F.

1.30 EXHAUST HOOD

- A. Exhaust Hood material, construction, etc. to be in conformance with IMC section 507.
- B. Dimensions approximately as shown on contract drawings and mounted at 80" A.F.F. to underside of hood. Final dimensions to be determined in field by Kitchen Equipment Contractor.
- C. Proper anchorages, etc..., installed in ceiling joists, slab, etc..., by Kitchen Equipment Contractor prior to final finish of ceiling.
- D. Body of #18 gauge stainless steel front, back and sides; straight as indicated on contract drawings. All joints to be flush welded. Where field joints occur, provide a pair of transverse frames, butted together and securely fastened following contour of hood structure.
- E. Bottom rim of hood attached to channel of #14 gauge STAINLESS STEEL with mitered welded corners and butted field joints. Cross section inside of channel to measure approximately 2-1/2" horizontally, flanged upward tightly against interior lining of hood.

- F. Above dishwashing machine, kettles and steamers or non-grease producing equipment, hood provided with sloped baffle at back arranged at 45° angle of #18 gauge stainless steel. Baffles to have sliding dampers of #16 gauge stainless steel mounted in #14 gauge stainless steel channel tracks. Each damper to have stainless steel handle fastened with concealed bolts.
- G. Above ranges, ovens, fryers, griddles, etc. or grease producing equipment, hood provided with built-in filters at back extending full length and arranged at an angle of 45° easily removable without use of tools. Filters to be approximately 20" x 20" x 2" thick, of STAINLESS STEEL and expanded metal construction or as further indicated on contract drawings. Filters set into #14 gauge STAINLESS STEEL filter frame, bottom of which is integrally installed with back of hood and grease gutter for easy cleaning. Quantity and size of openings in plenum chamber as indicated in contract documents.
- H. Hood(s) provided with STAINLESS STEEL hanger brackets, welded to top of hood, spaced not more than 36" on center.
- I. Section of hood below ceiling or soffit, enclosed with vertical facing of #18 gauge STAINLESS STEEL. Panels not to exceed 36" in width, easily removable where required, provided with recessed finger grip or similar. Where panels meet at vertical joints flanged inward 1" to form a hairline joint. Channel extended 2" beyond perimeter of hood and provided with concealed full length angle member of 2" x 2" x 3/16" G.I. with clips for bolting to hanger angles, spaced approximately 36" on center. Hanger angles attached to 2" x 2" x 3/16" angle frame fastened to ceiling slab. Panels held in place at ceiling with 2" x 2" x 1/8" STAINLESS STEEL angle trim all around.
- J. Hood(s) provided with recessed or flush vapor-proof LED light fixtures, approximately 12" X 12" style or 48" strip style, pre-mounted by manufacturer. Light fixture with bulb(s), as provided by specified exhaust hood manufacturer, refer to Part 2 Products. All wiring and interconnections by Electrical Contractor.
- K. All exhaust hood controls, switches, etc... to be mounted @ 48" AFF. This is to be the maximum height allowed.
- L. All wiring and interconnections for controls, switches, fans, solenoid, shunt trips, etc., by Electrical Contractor. This includes any requirements to and from remote panels, switches and control packages.
- M. Must be tested and comply with the most current codes (or per local jurisdiction) UL-710, International Mechanical Code (IMC), and NFPA 96.

1.31 NOT USED

1.32 FIRE PROTECTION SYSTEM

- A. The system shall be a pre-engineered cartridge-operated type R-102 system utilizing Liquid Ansulex agent, with a Fixed Nozzle distribution network. It shall be furnished and installed in compliance with UL Standard 1254, UL Standard 300, NFPA 96-2008 and any prevailing statutes or codes including automatic shut-down of all cooking appliances per code section 44 of NFPA 17A-27-2002.
- B. System to provide connection to building Fire Alarm System per NFPA 17A; Section 3-2.1.5.
- C. Fire protection remote pull stations mounted @ 48" AFF, located 10 ft. minimum to 20 ft. maximum from exhaust hood(s).

- D. The extinguishing agent shall be a specifically formulated aqueous solution of organic salts contained in a S.S. tank with 3 gallons minimum capacity, and able to withstand test pressure of 330 PSI. A welded S.S. bracket shall be provided for mounting the tank.
- E. The regulator releases mechanism shall be capable of providing sufficient expellant gas to discharge enough agent to meet the minimum nozzle discharge requirements. The mechanism shall have a visual indicator of "fired" condition. This mechanism shall be capable of being operated by fusible link detection, remote manual release and local manual release. The mechanism should be housed in a S.S. enclosure with cover containing identifications thereon.
- F. Each discharge nozzle to be listed with UL approval for placement and size. Each nozzle shall have a rubber blow-off cap to keep the nozzle tip orifice free of cooking grease build-up. All exposed piping to be chrome plated finish, and there shall be no exposed threads.
- G. Kitchen Equipment Contractor to furnish mechanical (electrical) gas valve, up to 3" in size and coordinate the install/provisions to shut-off all fuel supplies to all cooking appliances beneath Type I exhaust hood upon activation of system. If electrical gas valve is to be utilized, Kitchen Equipment Contractor to furnish reset relay push button.

It is the responsibility of the Plumbing Contractor to install, coordinate and make any provisions necessary for complete operation of gas valve.

It is the responsibility of the Electrical Contractor to furnish and install electrical wiring, relays, etc... and make any provisions necessary for complete operation of gas valve. In addition, Electrical Contractor to furnish and install automatic equipment necessary to shut-off all electric beneath Type I exhaust hood upon activation of system.

- H. Kitchen Equipment Contractor to furnish and install a Class K Fire Extinguisher, dedicated to each room where a Type I exhaust hood is installed.
- I. Upon completion of installation, the installer to perform a wet chemical test or at the time of the test, the authority having jurisdiction may allow the Contractor to use flushing concentrate and water solution. However, whichever is permitted, it must be in compliance with Code. This test shall activate the entire system, except the agent supply tank, which will be substituted by the test tank of like pressure and size. Following a satisfactory test, the original tank shall be replaced. The system shall then be certified to be in working order and all authorities shall be so advised in writing. Provide Owner with copies of all satisfaction/acceptance tests.
- J. The system to be furnished and installed by a factory distributor in accordance with the manufacturer's instructions. This shall include mounting of the system units, manual releases, nozzles, actuating devices, and the running of all pipe and control tubing applicable to the R-102 system. If and when requested, submittal drawings concerning the fire system shall have affixed the seal and signature of a licensed engineer for the State in which they are to be installed. A 1-year service contract and maintenance program to be provided.
- K. Kitchen Equipment Contractor is required to submit a copy of the hood suppression system shop drawing to the local authority having jurisdiction for approval, as well as submission to the Architect. In addition, shop drawings when submitted, must be signed and sealed by an engineer licensed to practice in the State where the system is to be installed.

1.33 DISH TABLES - SOILED AND CLEAN

- A. #14 gauge polished S.S. with exposed edges finished in 3" high curbing with a 1-1/2" diameter, 180° rolled trim at top, corners bullnosed, welded. Where adjacent to wall, top carried up 12" integrally at top and ends. All joints in top welded and free of buckles and weld marks. When applicable, where top (also raised back), adjoins dishwashing machine, same flanged down 1" into machine and secured water tight, backsplash in this area brought forward diagonally to machine to form a baffle. Tops thoroughly cross braced with 4" x 1" channel stiffeners of #14 gauge S.S. and welded to underside. Cross bracing approximately 24" on center, running front to back. All corners in top rounded to 1" radius, vertically and horizontally.

1.34 NOT USED

1.35 NOT USED

1.36 PRE-WASH SINK

- A. Approximately 21" x 21" x 7" deep, of #14 gauge S.S. integrally welded to table top, forming an integral unit with same. Sink bowl identical to that specified for sink built into table top including basket drain assembly with built-in overflow, etc. Sink pitched to a 2" IPS C.P. brass "lever" waste outlet and fitted with a #18 gauge S.S. snug fitting basket approximately 19" x 19" x 6" deep, with continuous perforation and reinforced top edges and 4 sides. Basket of all welded construction mounted on 2" high S.S. feet.
- B. Top of pre-wash sink fitted with S.S. guide for dish racks. Guide of 1-1/2" x 1-1/2" x #12 gauge S.S. angles with ends flared out to facilitate easy movement of racks. Guide welded to cross angles of same material, thus forming a removable frame. Dish table backsplash (unless otherwise specified and shown) in area where pre-wash sink is located, provided with Fisher Mfg. Co. stainless steel pre-rinse unit model #33308 includes wall bracket, shortened riser pipe to 16", add on faucet with 12" swing spout, nipples, elbows, backflow preventer mounted on pre rinse unit, mixing faucet with S.S. seats and check valve stems to prevent cross flow, EPAAct 2005 certified.

1.37 NOT USED

1.38 NOT USED

1.39 SERVING COUNTER

- A. Of size and shape as shown. Top of #14 gauge polished S.S. rolled down in a 2" diameter 180° roll on all exposed edges with corners bullnosed, welded. Top secured to counter base by means of concealed S.S. studs, nuts and washers. Angle frame under top sheathed with sound deadening material.
- B. Base constructed with interior framing of 1-1/2" x 1 1/2" x 1/8" galvanized steel angle with all joints welded.
- C. Angle framework concealed on the interior with #18 gauge polished S.S. sheathing. Exterior facing of base cabinet and ends to have sheathing of Plastic Laminate paneling laminated to 3/4" thick solid core, exterior grade marine plywood, panel length not to exceed 36". Color and style of paneling selected by Architect. Each panel of length as indicated, full height of counter and splined hairline joints. Panels and trim secured to interior framing by means of concealed welded studs, nuts and washers. Or constructed of alternate materials as detailed on drawings.

- D. Interior of all available space provided with bottom and intermediate shelf of #16 gauge S.S. turned up approximately 2" at rear and ends, and down 1-1/2", and in 1/2" channel shape at front.
- E. Mounted on masonry base, height as indicated on drawings or 6" high 14 gauge S.S. legs with S.S. removable toe base, where indicated. All openings in top flanged downward approximately 1" around their entire perimeter. Top cut out for and provided with equipment as hereafter specified.
- F. It is the responsibility of the K.E.C. to supply and mount all electrical outlets, switches, controls, etc. within table/counter back splashes, aprons, panels, etc. and to provide S.S. cover plates as required. Furthermore, it is the responsibility of the Electrical Contractor, in coordination with the Kitchen Equipment Contractor, to make final interconnections within serving counter interior to junction boxes, outlets, switches, controls, etc. for equipment indicated, if required.

1.40 NOT USED

1.41 NOT USED

1.42 COLD PAN

- A. Of size and shape shown, approximately 20" wide, of length as shown on plan, 6" deep in the clear, unless otherwise indicated, constructed in accordance with NSF #7, integrally constructed into counter and top. To have sectional #18 gauge S.S. perforated false bottom in sections not over 18" wide, 1/2" channel edge on 4 sides. Interior lining to have all corners rounded to 1" radius vertically and horizontally, of #14 gauge S.S. all joints and crevices welded. Where cold pan is used as a salad bar, same to be 8" deep in the clear unless otherwise indicated.
- B. Insulation in all 4 sides and bottom of unit 2" thick polyurethane or equal. Refrigeration coils copper 1/2" O.D. and 3" on center, sweated to underside and embedded in insulation. Provide a copper tubular refrigeration coil, further sealed with hydrolene. Coils connected to compressor hereinafter specified and shall have liquid line with solenoid valve and thermostat for control, provide a shut-off valve in liquid line ready and accessible to disengage same when required.
- C. Exterior sheathing of #18 gauge S.S. bottom pitched and fitted with a 1-1/2" drain outlet with threaded connection plumbing. Plumbing Contractor to extend drain line so as to flow into adjacent floor drain. Joint between top of cold pan and turned down edge of counter top provided with breaker strip around full perimeter of opening.
- D. Where shown, space under counter provided for installation of compressor. This section fitted with removable #18 gauge S.S. grill on attendant's side. Shall have not less than 75% rectangular perforation. Counter front panel and/or sides where possible in way of compressor housing louvered. Interior of housing reinforced with horizontal and vertical framework of 1 1/2" x 1-1/2" x 1/8" angle having all joints welded. Lower frame provided with #14 gauge channel stiffeners welded in place and fitted with rubber cushions. Channel spaced to properly support condensing unit. Housing approximately 24" left to right to properly admit compressors.
- E. Refrigeration coils connected to condensing unit, size as indicated on plan, air cooled, furnished complete with all necessary copper tubing, thermostatic control valves dehydrators, expansion valves, sight glass, etc., to make a complete working unit with warranty and free service, guarantee for 1 year. Compressor connected to coils of cold pan in a satisfactory and operating manner. Compressor, etc., internally wired. Provide

push button switch with pilot lite recessed in adjacent section in apron above housing to turn on/off cold pan as required.

1.43 NOT USED

1.44 NOT USED

1.45 NOT USED

1.46 NOT USED

1.47 COUNTER AND CABINETS WITH SEMI-ENCLOSED BASE

- A. Top of #14 gauge polished S.S. finished 1/2" above working level with 2" diameter 180° roll, bullnosed corners on all exposed sides. Where adjacent to wall, top carried up approximately 6" (or as specified hereinafter and shown) and returned 1" at top and ends towards wall with corners welded forming a continuous unit. Top fastened to cabinet by means of welded and concealed studs.
- B. Cabinet below top to have #18 gauge S.S. enclosure. Front stiles of cabinet channel shaped. This channel fully enclosed inside of cabinet. Top reinforced by means of horizontal framework of S.S. 1-1/2" x 1-1/2" x 1/8" angle with cross braces not more than 18" on center. Framework of all welded construction and intermediate shelves in cabinet of #16 gauge S.S. turned up on all sides to eliminate crevices at shelf surface. Front edge of shelf channel shaped. Shelf surface reinforced by means of #16 gauge S.S. channel stiffeners spaced on not more than 24" on center. Mounted on 6" S.S. adjustable legs, or as hereinbefore shown and specified.

1.48 BAIN MARIE

- A. Of size and shape as shown, approximately 20" wide (or as shown on drawing) and approximately 10" deep in the clear set into openings in table top continuously welded in place to form integral units, of #14 gauge S.S. having all interior corners, both vertical and horizontal, coved to 1" radius. Unit of size to accommodate removable S.S. 12" x 20" pans or interchangeable with Seco #6 or #14 S.S. panels. Furnish adaptor bar so as to use half size pans. Pans and panels to be as hereinafter specified.
- B. Bottom punched and provided (similar to that for sinks) with a 2" C.P. brass lever handle waste outlet. An overflow directly connected to waste outlet set at proper height and provided with S.S. strainer plate.
- C. Electrically heated bain maries shall be heated with a Hatco FR- type electric (k.w. as hereinafter specified) heating unit at bottom and provided with low water cut-off, magnetic contactor and thermostatic control, with pilot light. Elements installed in a manner so easy servicing and replacement is possible. All wiring concealed. Switches installed at working side where electric is shown.
- D. Gas heated bain maries shall be heated with a series of in-line loop burners, model 3612 as manufactured by Beacon Specialties. Burners installed 16" ON CENTER so as to provide full length heating under Bain Marie. Burners manifolded so as to have one gas connection. Provided with brass pilot valve, adjustable pilot light assembly and thermostat.
- E. Steam heated bain marie shall be heated with a 4 turn 3/4" I.P.S. brass or S.S. steam heating coil fastened to bottom of unit with S.S. straps and provided with a thermostatic control valve.

- F. Provide sectional removable pan-shaped #14 gauge perforated S.S. false bottom with corners rounded to contour of bain marie. Note that false bottom must not interfere with operation of Hatco unit. Sections not over 12" wide for easy handling, and with 1" channel all around. Unit provided with a deck type swing spout hot water faucet.
- G. Bain marie so constructed as to be used with or without panels by means of removing panels as required and placing pots, etc., directly into the open bain marie. All 4 sides of unit enclosed with #18 gauge S.S. in a good, approved, workmanlike manner.

1.49 DOORS

- A. Whether sliding or hinged type, not less than 1/2" thick overall, double paneled having 3/8" sound-deadening material between #16 gauge S.S. front and #18 gauge S.S. back, reinforced between panels by wide channels, running height of door and made of same material. Panels jointed with continuous welding. Doors and vent openings to have back panel boxed around vent opening and welded to front panel. Doors dust proof and entire front face without seams or joints.
- B. Sliding doors mounted on ball bearing type rollers, sliding in dust proof #14 gauge S.S. tracks overhead, fastened so as to eliminate vibration and jarring when doors are rolled. Doors fitted with limit stops. Bottom guide of #14 gauge S.S. for doors, open and flat, lining up with lower shelf of cabinet - slots so arranged that crumbs or dirt accumulating in the cabinet will drop to the floor when cabinet is cleaned. Recessed handles solid material, not stamped, of S.S. welded to front panel. Finger grips of ample depth to comfortably pull the door. Doors provided with keyed-alike S.S. faced cylinder locks, built-in flush.
- C. Hinged type doors flush fitting, unless otherwise specified, resting tightly against rabbetted frame. Hinged doors provided with Klein Model #Y-48 (or approved equal) keyed-alike S.S. faced cylinder locks with Model #12230-SM (or approved equal) handles. In case of pair of doors, each individually controlled as outlined and is to close against rubber bumpers.
- D. Outer edges smooth, free from burrs, projections and fins. Excess welded metal removed by precision grinding and polishing.

1.50 REFRIGERATORS AND REFRIGERATION UNITS

- A. Reach-in refrigerators, freezers, and refrigerated units, as shown unless otherwise specified, furnished by Kitchen Equipment Contractor. They shall meet all requirements as set forth for individual item number and complete with self-contained or remote compressors and motors. Cooling coils blower type, unless otherwise called for, provided with initial charge of approved CFC free refrigerant. Plumbing Contractor responsible for extending refrigerator drain line, where required, to spill into adjacent floor drain in approved manner. Extended drain line not less than 3/4" I.D. and C.P. or S.S. tubing.
- B. All refrigerated equipment, refrigerators and freezers, whether walk-in or reach-in, started and adjusted to maintain required temperatures, charged with approved refrigerant as required.
- C. All reach-in refrigerators, freezers, hot food warmers, etc., to have keyed-alike locks. Kitchen Equipment Contractor must request this at time of placing order to avoid correction at a later date at Kitchen Equipment Contractor's expense.
- D. Kitchen Equipment Contractor to provide 1 year's free service for all types of refrigerators and refrigeration equipment. Service to include all compressors, unit coolers, controls, etc., to include adjustments and repairs, irrespective of cause, whether mechanical,

operational or manufacturing at no additional cost to Owner. Additionally, five (5) year warranty provided on all compressors, parts only or replacement.

1.51 WALK-IN COOLER AND FREEZER

- A. General Description: To be N.S.F. approved units, of size and manufacturer as indicated on contract drawings, 8'-6" high, unless otherwise specified, completely furnished and assembled unit installed in an approved manner. As indicated on drawing, either installed into a 6-1/2" depressed floor area with flush type door sill and floor finish as shown on contract drawings, or installed directly on floor with interior ramp, and prefabricated aluminum floor with heavy duty structural underlayment floor, approximately 5,000 pounds per square feet of load. Where prefabricated floor with interior ramp indicated, unit to be finished with "First Choice" vinyl safety flooring provided and installed by Kitchen Equipment Contractor. Where depressed floor indicated, doors, floors, etc. to accommodate concrete-tile finished floors, provided and installed by G.C. after all boxes have been set in place. Walk-in freezers to maintain 0° to "minus" 10° Fahrenheit temperature. Walk-In coolers to maintain 35° to 36° Fahrenheit temperature.
- B. Finishes: Unexposed exterior of each unit to be .040 stucco aluminum finishes. All exposed exterior surfaces to be #20 gauge stucco S.S. finish. Interior, except floor, to be .040 stucco white aluminum finish. Floor as noted hereinbefore in spec section 1.51 A.
- C. Insulation:
1. Insulation shall be 4" thick rigid urethane foam, foamed-in-place to bond to inner surfaces of metal pans. Urethane foam to have a thermal conductivity (K factor) of not more than 0.118 BTU/hr./sq. ft. per degrees Fahrenheit/inch, and an overall coefficient of heat transfer (U factor) of not more than .029. The "R" factor shall be 34.
 2. (Optional) Prefabricated urethane foam panels shall be supplied with a Class 1 fire hazard classification according to ASTM-E-84 as tested by Factory Mutual System. Panels shall have a flame spread rating of 25 or less and a smoke density of no greater than 450°. Every panel shall bear a certifying Factory Mutual label.
 3. * These ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.
- D. Doors: Each walk-in shall be equipped with one standard 34"/36" x 78" hinged-type, flush mounted entrance door bearing the UL seal of approval, or of size as indicated on drawing. Each door section consists of a heavy reinforced steel "U" channel frame, foamed-in-place to give extra support and rigidity to the frame and to prevent racking, distortion, warping and twisting. Doors to be #20 gauge S.S. interior and exterior. Door and door panel sections to have 1/8" diamond tread kick plates, 36" high on interior and exterior. Walk-in entrance doors shall be equipped with a one-piece perimeter NSF approved PVC accordion type removable gasket. A magnetic core at top and side shall provide positive seal. An adjustable wiper gasket shall be mounted along the bottom edge of door. Door frames shall be provided with an LED light fixture, pilot light and switch assembly, and concealed wiring. Provide #12 gauge reinforced S.S. threshold and heater wire around the full perimeter (freezer door only). All doors hinged as shown, each with heated 14" x 24" "vision" panel.
- E. Standard Hardware: Shall be break-a-way type with cylinder lock and inside safety release handle so door can be opened from the inside even if locked. All latches designed for locking with keyed-alike locks. A positive action hydraulic door closer shall be included to insure gentle closing action of door and insure a positive seal. Hinges shall be cam-lift,

self-closing, spring assist with door lift-off capability. Hinges shall be high-pressure zinc die cast with highly polished chrome finish, three per door.

- F. Filler Panels: The "exposed" open area of unit at left, right and top at front and sides neatly trimmed with #20 gauge stucco S.S. filler panels to close space between wall and ceiling. Filler panels between top of walk-in box and finished ceiling not to exceed 12" in height. Filler panels equal to exterior of unit. Top panels to be equipped with louvered sections not less than 40% of total square footage of panel (when compressor units are top-mounted).
- G. Wall Protection: Two rows of #16 gauge S.S. hat shaped rub rails with concealed fasteners; to be provided and installed at all exposed exterior walls. Top of rub rail to align with top of diamond tread kick plate on door and bottom rub rail to be 10" A.F.F. When corners are exposed, provide 6" x 6" x 60" #12 gauge S.S. corner guard.
- H. Lights: Walk-In boxes to be provided with 48" LED light fixtures, Kason model #1810, quantity as shown on plan. The walk-in cooler and freezer to have LED type vapor-proof light, Kason model #1806, with concealed wiring, etc., and toggle switch with pilot light mounted on exterior. Kitchen Equipment Contractor to provide bulbs. It is the responsibility of the Kitchen Equipment Contractor to install light fixtures, provide penetrations in ceiling panels, and seal the penetrations after Electrical Contractor has completed wiring.
- I. Sealants: Kitchen Equipment Contractor shall seal all lines, conduits, tubing, wiring, etc., passing through walls and ceiling of walk-in units with high grade caulking compound, then install S.S. escutcheons where required.
- J. Alarm System: Each compartment shall be protected by Modularm 75LC system with recessed in panel controls. System provided with wireless communicator, mounted at walk-in units, for connection to building network. System shall provide digital readout of ambient compartment temperature(s). The system shall be located in an area as indicated on the contract documents. It shall require 120/60/1 electrical connection through suitable 1/2" conduit. CAT5 cable connection for activation of remote notification equipment will be provided as part of the alarm system. CAT5 cabling provided and installed by General Contractor. Furnish and install identification labels for operating temperatures as required.
- K. Ceiling Support: When split ceilings are required due to ceiling panel span, these ceilings are to be supported by a self-support ceiling structure. The walk-in manufacturer is to provide the ceiling hanger brackets, the steel channels and the bearing steel channels. A detail must be provided on the manufacturer's submittal drawing. Note: When longer spans are required that exceed self-support capability then suspended ceilings are to be provided with manufacturer's detail.
- L. Flat Membrane Weather-Proof Roof: Shall be supplied for field installation on top of each walk-in that is located outdoors. Membranes to be fabricated from low-shrink polyester fabric coated with a permanent thermoplastic alloy and have a minimum thickness of 35 mil. Membrane shall be fire retardant, resistant to ultra-violet rays and micro-organisms. Membrane to be white in color to reflect maximum heat load from the sun. Fasteners and trim shall be provided to secure the membrane to the ceiling panels and in cases where walk-in is installed against a building; the membrane roof material will be flashed up the building walls by the equipment installation contractor. The manufacturer's detail must be provided on the submittal drawing.
- M. Compressors and Evaporators: Cooler unit, model as indicated on drawings; room air drawn through coil and discharged parallel to ceiling. The coil casing is to be aluminum with a removable drain pan. Drain line from evaporator coil to floor drain as indicated on

contract drawings, attached to interior of box with clamps and installed in good, approved, workmanlike manner by Plumbing Contractor. Compressor of the hermetic and/or scroll type, with suction gas cooled motor, designed for operation with approved refrigerant. Unit complete with liquid line drier, shut-off valves, vibration isolators, heat exchanger, dual pressure control and water regulating valve (for water-cooled systems), electrical panel with circuit breaker and magnetic starter. All components and accessories in control box that pertains to the compressor unit only should be factory wired and piped.

For outdoor systems a weather-proof housing, thermostatically controlled crank case heater and low ambient controls for -20°F conditions shall be provided.

Note: Electrical Contractor to provide and install fused disconnect switch where required, as well as conduit and wiring from same to terminals in compressor unit control panel. Also, interconnect conduit and wiring from compressor unit control panel to unit cooler junction box inside walk-in units.

Freezer Unit, model as indicated on drawing, to be electric defrost. The coil casing is to be aluminum with a removable drain pan. Electric heating elements and drain pan heaters. Unit shall include control kit for time initiated temperature terminated defrost plus automatic fan delay. Heat interchanger included. Drain line from evaporator coil to floor drain as indicated on contract drawings, attached to interior of box with clamps and painted to match interior finish; and installed in good, approved, workmanlike manner by Plumbing Contractor. Kitchen Equipment Contractor to install adequate amount of wrap-around, electric heater tape to assure defrosting of drain line, cable lapped not over 1" spacing. Provide Raychem Winter Guard Plus electrical heat tracing model H611050 (type 3), self regulating in temperature, run in parallel, to be designed with a maximum temperature that cannot be surpassed, certified by the manufacturer's representative that the heat trace has been installed and tested in accordance to the manufacturer's specifications. Heater tape connected to electric by Electrical Contractor. After installation and before and after installing the thermal insulation, subject heat to testing using a 2500 VDC megger. Minimum insulation resistance should be 20 megohms regardless of length. The installer shall test for both heating cable bus wires to verify the connection of any splices or tees.

Equipment shall have BTU/hr capacity as indicated on drawing and maintain room temperature of 35° to 36° Fahrenheit, where refrigerator is specified, and 0° to "minus" 10° Fahrenheit, where freezer is specified.

Refrigerant piping to be hard seamless copper tubing, by KEC. Refrigerant lines installed and covered with not less than 1" thick flexible foam plastic insulation applied in accordance with the manufacturer's recommendations. Refrigeration lines to run from compressor location where shown, above the walk-in units. All lines to be tested free from leaks prior to finish of insulated lines. Condensates drain lines outside of walk-in boxes, similarly insulated with 1/2" insulation, by KEC. Each system shall have suction line filters and vibration eliminators field installed.

Thermostatic expansion valves properly sized to handle evaporator loads. Liquid lines shall have moisture indicating sight glass, drier, and shut-off valve field installed.

The temperature in each walk-in box controlled by means of a thermostat wired to actuate a solenoid valve in the liquid lines with the compressor operation controlled by the low pressure cut-out switch. Thermostats and low pressure controls adjusted to maintain room temperatures specified. Each system cleaned and dehydrated by maintaining a vacuum of 500 microns or lower for a minimum period of 5 hours. The vacuum pump used capable of developing a vacuum of 50 microns with its valve in a closed position. The required operating charge of refrigerant and oil shall then be added and each system tested for performance. All refrigerant lines sized for 1 lb. maximum pressure drop.

It is the purpose of the specification to provide a satisfactory refrigeration cycle, therefore, Kitchen Equipment Contractor must include the competent labor and qualified material to provide the owner with an efficient system.

- N. Mounting Methods: Compressors, when mounted on building roof, to be provided with adequate dunnage/ curbing by Kitchen Equipment Contractor. Dunnage/ curbing installed by G.C. or roofing contractor. Architect to specify dunnage/ curbing details.

Compressors, when mounted on ceiling of walk-in, to be provided with adequate air circulation, service, access, and vibration isolation.

1.52 NOT USED

PART 2 – PRODUCTS

ITEM #1 S.S. PASS-THRU SILL – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Sill to be extension of Item #2 top, Soiled Dish Table
- Stainless steel window interior sides/top
- Stainless steel window casing, 2" wide continuous flange

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #2 SOILED DISH TABLE – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Stainless steel tubular crossrails, side / rear

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #3 SCRAP CHUTE, BUILT-IN – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Built into Item #2, Soiled Dish Table
- Fully welded hopper, 6" diameter
- 3/4" high raised rim

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #4 PRE-WASH SINK, BUILT-IN – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Built-in pre-wash sink, 21" L x 21" W x 7" D
- 1 ea. Waste valve
- 1 ea. Stainless steel pre-rinse assembly with 12" swing spout add-on faucet and wrist action handles, 1/2" connections
- 1 ea. Removable perforated basket, 19" L x 19" W x 6" D, Stainless Steel, 18 Gauge
- 1 ea. Removable rack guide to fit over sink, Stainless Steel, 12 Gauge

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #5 DISHRACK SHELF, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

New Age Model 52924. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Capacity: (13) 20" x 20" Racks
- Mounting height: 56" above finished floor
- 1 ea. Vertical storage, 4-1/2" centers
- Wall backing by General Contractor

Or as manufactured by Channel Mfg. or Lockwood.

ITEM #6 WAREWASHER, RACK CONVEYOR – QTY. AS PER PLAN & SCHEDULE

Hobart Model CL44EN-BAS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 480/3, Hardwired, machine connection
- Electrical: 480/3, Hardwired, booster connection
- Verify direction of operation
- 6 ea. Peg racks, PEG20
- 6 ea. Combination racks, COM20
- 6 ea. Sets of all purpose racks
- 6 ea. One side open rack, P1400
- 1 ea. Built-in hot water booster, 70° rise
- 1 ea. Detergent/rinse aid pumps, built-in
- 1 ea. Drain tempering kit
- 1 ea. High chamber
- 1 ea. Energy Star® Certified

Or as manufactured by Champion or Meido.

ITEM #7 SPARE NUMBER

ITEM #8 EXHAUST HOOD, TYPE II – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as

further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Construction: 100% 304 stainless steel
- Structural front panel
- Length / size as per contract documents, wall/island canopy hood
- Stainless steel field wrap, approximately 18" high on all exposed sides
- Baffles shall be fully removable
- Full perimeter gutter with 1/2" stainless steel drain coupling

No alternate manufacturers will be accepted for this item.

ITEM #9 CLEAN DISH TABLE – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Stainless steel tubular crossrails, side / rear

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #10 ROLLER TABLE, GRAVITY FED – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Stainless steel tubular crossrails, side / rear
- 2" PVC rollers, 4" on center, removable sections

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #11 DISH DOLLY, ADJUSTABLE – QTY. AS PER PLAN & SCHEDULE

Metro Model PCD11A. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Additional dividers

Or as manufactured by Cres Cor or Cambro.

ITEM #12 3-COMPARTMENT SINK, POTWASH – QTY. AS PER PLAN & SCHEDULE

Gates Mfg. Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- 3 ea. Built-in work sinks, 28" L x 24" W x 14" D

- 3 ea. Waste valve with lever
- 3 ea. Tail piece
- 3 ea. Waste overflow
- 1 ea. Stainless steel pre-rinse assembly with 12" swing spout add-on faucet and wrist action handles, 1/2" connections
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- 1 ea. Stainless steel common bowl skirt
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or IMC/ Teddy.

ITEM #13 STORAGE SYSTEM, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

Eagle Group/Metal Masters Model WAL-STOR. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting Height: 50" above finished floor
- 2 ea. Wall grid/mat, WM1866-E, stacked
- 1 ea. Wall uprights, vertical, PR45VU-E
- 2 ea. Shelf, 1448-E
- 2 ea. Shelf Brackets, PR14B-E
- 1 ea. Grid Shelf, 1436WGS-E
- 2 ea. Baskets, WB-E
- 12 ea. Utility Hooks, UH-E
- 1 ea. Epoxy coated finish, entire wall system
- Wall backing by General Contractor

Or as manufactured by Focus or Metro.

ITEM #14 SPARE NUMBER

ITEM #15 HAND SINK, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model WS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 1 ea. Electronic faucet, gooseneck
- 1 ea. Soap dispenser
- 1 ea. Towel dispenser
- 1 ea. Left and right splash guards
- 1 ea. Emergency Eye Wash Unit, EW-S
- Wall backing by General Contractor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #16 RACKS, DRYING – QTY. AS PER PLAN & SCHEDULE

Metro Model PR48VX3-XDR. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 4 ea. 24" x 48" shelves with removable, vented inserts

- 4 ea. 74" high uprights
- 1 ea. Cutting board/tray drying rack, MTR2448XEA
- 2 ea. Drop-in Rack, DR48S
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #17 SINK, MOP – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model FS-D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Pole mop holder, MH4
- 1 ea. Hose and bracket, HA
- 1 ea. Service faucet, SSF
- 2 ea. Wall flashing, FL48

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #18 MOP DRAINAGE TRAY, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model FST-21. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Wall backing by General Contractor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #19 STORAGE SHELVING, PORTABLE – QTY. AS PER PLAN & SCHEDULE

Metro Model MQ2142G. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 5 ea. 21" x 42" Shelves with removable, vented inserts
- 4 ea. 74" High uprights
- 1 ea. Tool free shelf adjustment
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #20 WALK-IN COOLER – QTY. AS PER PLAN & SCHEDULE

Not in Contract.

ITEM #21 SPARE NUMBER

ITEM #22 REFRIGERATION TO ITEM #20 – QTY. AS PER PLAN & SCHEDULE

Not in Contract.

ITEM #23 STORAGE SHELVING, PORTABLE – QTY. AS PER PLAN & SCHEDULE

Metro Model MQ2148G. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 5 ea. 21" x 48" Shelves with removable, vented inserts
- 4 ea. 64" High uprights
- 1 ea. Tool free shelf adjustment
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #24 WALK-IN FREEZER – QTY. AS PER PLAN & SCHEDULE

Not in Contract.

ITEM #25 REFRIGERATION TO ITEM #24 – QTY. AS PER PLAN & SCHEDULE

Not in Contract.

ITEM #26 SAFETY FLOORING, FULLY WELDED – QTY. AS PER PLAN & SCHEDULE

High Performance Floors Model Protect-All. Unit to be installed where shown on drawings. Flooring to be applied throughout walk-in boxes, including interior ramp, as detailed on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Sheet Material: 5' x 8' Dimensions, 1/4" thick minimum
- Color Selection: Dark Gray
- Finish Selection: Top Surface, Stipple
- Aluminum Edge Flashing: Cove cap mechanically fastened to wall over top of wall board
- Proper bonding agent, 2-Part Epoxy Adhering Agent
- Seams to be heat welded
- Stainless steel Corner Edge Guards mechanically fastened on all outside corners
- Stainless Steel Transitions
- Stainless Steel Rings at all Floor Drain/Sinks, if applicable
- Ten year warranty

Or as manufactured by Altro Stronghold or BMI Titan.

ITEM #27 STORAGE SHELVING, PORTABLE – QTY. AS PER PLAN & SCHEDULE

Metro Model MQ2148G. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 5 ea. 21" x 48" Shelves with removable, vented inserts
- 4 ea. 64" High uprights
- 1 ea. Tool free shelf adjustment
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #28 SPARE NUMBER

ITEM #29 UNIVERSAL RACK, ROLL-IN – QTY. AS PER PLAN & SCHEDULE

Piper Products Model R611. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Pan Stop
- 1 ea. Corner Bumpers, Set of 4

Or as manufactured by New Age Industrial or Cres Cor.

ITEM #30 FILTER SYSTEM FOR ITEM #32 – QTY. AS PER PLAN & SCHEDULE

Everpure Model EV9324-02. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- For use with Item #32, Ice Maker
- 1 ea. Set of replacement filters
- Wall backing by General Contractor

Or as manufactured by Pentair or Antunes.

ITEM #31 BIN, ICE – QTY. AS PER PLAN & SCHEDULE

ITV Ice Makers Model S-400-22. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Storage Capacity: 400 lbs.
- 1 ea. Ice scoop holder, stainless steel
- 1 ea. Ice shovel/scoop, stainless steel
- 1 ea. Set of 6" adjustable legs

Or as manufactured by Hoshizaki or Ice-O-Matic.

ITEM #32 ICE MAKER, CUBE STYLE – QTY. AS PER PLAN & SCHEDULE

ITV Ice Makers Model Spika MS 700. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Ice Production: 661 lbs. per 24 hours (approximately)
- 1 ea. Self-contained refrigeration, air cooled
- Water connection piped from wall mounted water filter, Item #30

Or as manufactured by Hoshizaki or Ice-O-Matic.

ITEM #33 STORAGE SHELVING, HIGH DENSITY – QTY. AS PER PLAN & SCHEDULE

Metro Model MQ2142G. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 5 ea. 21" x 42" Shelves with removable, vented inserts
- 4 ea. 74" High uprights
- 2 ea. Stationary kit, per required units only
- 9 ea. Mobile unit kit, per required units only

- 1 ea. Overhead track unit, approx.

Or as manufactured by Eagle Group/Metal Masters or Cambro.

ITEM #34 STORAGE SHELVING, PORTABLE – QTY. AS PER PLAN & SCHEDULE

Metro Model MQ2142G. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelving to be sized to fit
- 5 ea. 21" x 42" Shelves with removable, vented inserts
- 4 ea. 74" High uprights
- 1 ea. Tool free shelf adjustment
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Eagle Group/Metal Masters or Focus.

ITEM #35 SPARE NUMBER

ITEM #36 WORK COUNTER W/ SINK – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- 1 ea. Built-in work sink, 14" L x 10" W x 10" D
- 1 ea. S.S. Removable sink bowl cover
 - Stainless steel, 14 Gauge
 - Finger holes, lift-off
 - Flush inlay with work sink/top
 - Integral bracket, under counter, to hold when not in use
- 1 ea. Waste valve with lever
- 1 ea. Tail piece
- 1 ea. Waste overflow
- 1 ea. Stainless steel faucet with 8" swing spout and wrist action handles, 1/2" connections
- Cabinet/Door to be flush frame design
- Stainless steel integrated handles, horizontal orientation
- Cylinder locks, keyed alike, as required
- Stainless steel legs, 6" adjustable

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #37 BAG-IN-BOX SYSTEM, BEVERAGE – QTY. AS PER PLAN & SCHEDULE

Vendor supplied. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P

ITEM #38 DISPENSER, BEVERAGE/ CARBONATED – QTY. AS PER PLAN & SCHEDULE

Vendor supplied. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Water connection piped from wall mounted filter, Item #40

ITEM #39 REFRIGERATOR, UNDERCOUNTER – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model UCR36AHC. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- 1 ea. Self-contained refrigeration
- 1 ea. Stainless steel top, 16 Gauge
- 1 ea. Digital thermometer, external
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- 1 ea. Energy Star® Certified
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #40 FILTER SYSTEM FOR ITEM #38/ #41 – QTY. AS PER PLAN & SCHEDULE

Everure Model SO-MC SYSTEM. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- For use with Item #38, Beverage Dispenser
- For use with Item #41, Coffee Maker
- 1 ea. Set of replacement filters
- Wall backing by General Contractor

Or as manufactured by Pentair or Vizion.

ITEM #41 COFFEE MAKER, AUTOMATIC – QTY. AS PER PLAN & SCHEDULE

Bunn-O-Matic Model 12950.0216. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 5 ea. Regular glass decanters
- 5 ea. Decaf glass decanters
- Water connection piped from wall mounted filter, Item #40

Or as manufactured by Fetco or Grindmaster.

ITEM #42 SPARE NUMBER

ITEM #43 ADA WORK TABLE W/ SINK – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as

further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- ADA Compliant clearance 30" L x 19" W x 27" H
- 1 ea. Built-in work sink, tapered, 20" L x 16" W x 6" D each
- 1 ea. Rear / off-set drain connection
- 1 ea. Waste valve with lever
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- 1 ea. Work drawer assembly with removable cutting board
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #44 OVERSHELF, SPLASH MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 56" above finished floor
- Posts support bracket thru splash, welded to frame

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #45 WORK TABLE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Electrical: 120/1, NEMA 5-15R
- 2 ea. GFCI duplex receptacles mounted in splash, S.S. cover plates
- 2 ea. Work drawer assembly with removable cutting board
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #46 OVERSHELF, SPLASH MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 56" above finished floor
- Posts support bracket thru splash, welded to frame

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #47 SLICER, FOOD – QTY. AS PER PLAN & SCHEDULE

Berkel Model X13-PLUS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 1 ea. Automatic type
- 1 ea. Lift device

Or as manufactured by Hobart or Globe.

ITEM #48 POT RACK, CEILING MOUNT – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model PRC-3-2484. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 80" above finished floor to underside
- 50 ea. Stainless steel pot-hooks

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #49 SPARE NUMBER

ITEM #50 WORK TABLE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- Electrical: 120/1, NEMA 5-15R
- 1 ea. GFCI duplex receptacles mounted in splash, S.S. cover plates
- 1 ea. Work drawer assembly with removable cutting board
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #51 OVERSHELF, SPLASH MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 56" above finished floor
- Posts support bracket thru splash, welded to frame

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #52 CAN OPENER, MANUAL – QTY. AS PER PLAN & SCHEDULE

Edlund Model S-11. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- No additional features, options or accessories required

No alternate manufacturers will be accepted for this item.

ITEM #53 REFRIGERATOR, REACH-IN – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model HRPS1HC-1S. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- 1 ea. Self-contained refrigeration
- 1 ea. Solid door with lock
- 3 ea. Stainless steel shelves per compartment, top section
- 1 ea. Digital temperature control system
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- 1 ea. Energy Star® Certified
- Adjustable universal pan slides 1-1/2" O.C. to hold 18" x 26" or 12" x 20" pans, bottom section
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by

ITEM #54 ADA HAND SINK, WALL MTND. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model ADA-WS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- ADA Compliant
- 1 ea. Electronic faucet, gooseneck
- 1 ea. Soap dispenser, deck mounted
- 1 ea. Towel dispenser, integral C-fold
- 1 ea. Left and right splash guards
- Wall backing by General Contractor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #55 2-COMPARTMENT, PREP. TABLE – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- 2 ea. Built-in work sinks, 20" L x 16" W x 12" D

- 2 ea. Waste valve with lever
- 2 ea. Tail piece
- 2 ea. Waste overflow
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- 1 ea. Work drawer assembly with removable cutting board
- 1 ea. Stainless steel common bowl skirt
- Stainless steel undershelf, removable
- Flanged feet bolted to floor

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #56 REFRIGERATOR, WORKTOP – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model WTRD93AHC-2. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- 1 ea. Self-contained refrigeration, front breathing
- 2 ea. Solid door section
- 1 ea. Tiered drawer section
- 1 ea. Stainless steel top, 16 Gauge
- 1 ea. Digital thermometer, external
- 1 ea. Stainless steel back
- 1 ea. Flat top, no rear splash
- Cylinder locks, keyed alike, as required
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #57 STORAGE SYSTEM, WALL MTND. – QTY. AS PER PLAN & SCHEDULE

Eagle Group/Metal Masters Model WAL-STOR. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting Height: 50" above finished floor
- 2 ea. Wall grid/mat, WM1848-E, stacked
- 1 ea. Wall uprights, vertical, PR45VU-E
- 2 ea. Shelf, 1448-E
- 2 ea. Shelf Brackets, PR14B-E
- 1 ea. Grid Shelf, 1436WGS-E
- 2 ea. Baskets, WB-E
- 12 ea. Utility Hooks, UH-E
- 1 ea. Epoxy coated finish, entire wall system
- Wall backing by General Contractor

Or as manufactured by Focus or Metro.

ITEM #58 CUTTER/ MIXER, VERTICAL & VEG. – QTY. AS PER PLAN & SCHEDULE

Robot Coupe Model R2N. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 1 ea. Disc Package, SP5DISC

Or as manufactured by Piper Products or Electrolux.

ITEM #59 CABINET, MOBILE, WARM/ HOLD – QTY. AS PER PLAN & SCHEDULE

Cres Cor Model H-137-SUA-12D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- 1 ea. Push handle, 1087-101
- 1 ea. Perimeter bumper, 1405-159
- 1 ea. Cord wrap
- 1 ea. Energy Star® Certified
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by F.W.E. or Metro.

ITEM #60 S.S. WALL PANEL(S), 336" L – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Stainless steel panels, evenly sized, 20 Gauge
- Installed from top of coved base to underside of hood, entire length
- Hairline joints sealed with S.S. trim strips
- Secured to wall with heat resistant mastic

It is the responsibility of the Kitchen Equipment Contractor to coordinate and make all appropriate cut-outs in paneling based on utility requirements in this location and apply appropriate stainless steel trim strips, caps, gussets, etc.

Or as manufactured by IMC/ Teddy or Aero Mfg.

ITEM #61 OVEN CONVECTION, GAS – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RCOS-2. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: (2) 120/1, NEMA 5-15P
- Gas: 3/4" Rear Connection, 140 MBtuh
- Manifold gas line for double unit
- 1 ea. Pressure regulator
- 2 ea. Electronic ignition
- 2 ea. Solid state controls
- 1 ea. Stainless steel exterior bottom
- 1 ea. Stainless steel back enclosure, top/bottom
- 1 ea. Extra oven racks
- 1 ea. 48" Quick disconnect with flexible hose

- 1 ea. Restraint cable
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Southbend or Vulcan.

ITEM #62 FRYER, DEEP FAT, GAS W/ FILTER – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RFT-50-CM-3. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: (3) 120/1, NEMA 5-15P
- Gas: 3/4" Rear Connection, 342 MBtuh
- 1 ea. Manifold gas line for triple unit
- 1 ea. Pressure regulator
- 3 ea. Fryers, full pot
- 3 ea. Full size baskets
- 6 ea. Half size baskets
- 3 ea. Stainless steel frypot covers
- 3 ea. Computer controls
- 1 ea. Safety thermocouple
- 2 ea. Detachable splash shields, left/right
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- 1 ea. Built-in filtration
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Southbend or Vulcan.

ITEM #63 REFRIGERATOR, WORKTOP – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model WTRD119AHC-2. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- 1 ea. Self-contained refrigeration, front breathing
- 3 ea. Solid door section
- 1 ea. Tiered drawer section
- 1 ea. Stainless steel top, 16 Gauge
- 1 ea. Digital thermometer, external
- 1 ea. Stainless steel back
- 1 ea. Flat top, no rear splash
- Cylinder locks, keyed alike, as required
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #64 STAND, COOKING EQUIPMENT, REFRIG. BASE – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model WTRCS72HC. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 1 ea. Self-contained refrigeration

- 2 ea. Tiered drawer section
- 1 ea. Stainless steel marine top, 16 Gauge
- 1 ea. Insulated top, fire proof
- 1 ea. Digital temperature control system
- Cylinder locks, keyed alike, as required
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #65 GRIDDLE, COUNTERTOP, GAS – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RDSA-36-D. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounted on top of Item #64, Refrigerated Base
- Gas: 3/4" Rear Connection, 90 MBtuh
- 1 ea. Pressure regulator
- 1 ea. Piezo igniter, spark ignition
- 1 ea. Solid state snap action thermostat
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable

Or as manufactured by Southbend or Vulcan.

ITEM #66 CHARBROILER, COUNTERTOP, GAS – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RDRB-36. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounted on top of Item #64, Refrigerated Base
- Gas: 3/4" Rear Connection, 90 MBtuh
- 1 ea. Pressure regulator
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable

Or as manufactured by Southbend or Vulcan.

ITEM #67 RANGE, RESTAURANT, GAS – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RR-6. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Gas: 3/4" Rear Connection, 215 MBtuh
- 1 ea. Pressure regulator
- 1 ea. Standard oven base
- 1 ea. Piezo igniter, spark ignition
- 1 ea. 24" Stainless steel back riser with tubular overshef
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- Mounted on heavy duty adjustable casters, front two with brakes

Or as manufactured by Southbend or Vulcan.

ITEM #68 RANGE, RESTAURANT, GAS – QTY. AS PER PLAN & SCHEDULE

Royal Range Model RR-4. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Gas: 3/4" Rear Connection, 147 MBtuh
- 1 ea. Pressure regulator
- 1 ea. Standard oven base
- 1 ea. Piezo igniter, spark ignition
- 1 ea. 24" Stainless steel back riser with tubular overshelf
- 1 ea. 48" Quick disconnect with flexible hose
- 1 ea. Restraint cable
- Mounted on heavy duty adjustable casters, front two with brakes

Or as manufactured by Southbend or Vulcan.

ITEM #69 EXHAUST HOOD, TYPE I – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Construction: 100% 304 stainless steel
- Filters: Stainless steel captrate solo with hook
- Insulation: Integral air / insulation barriers at perimeter and top, 0" clearance to combustibles
- Structural front panel, insulated
- Wall / Island canopy hood, length / size as per contract documents
- 2 ea. Front perforated supply plenum (PSP) with built-in 3" back standoff
- Insulation for PSP housing, as required
- 8 ea. LED lights with bulbs
- Stainless steel field wrap, approximately 18" high on all exposed sides
- Adjustable exhaust air volume control damper
- Hood Control Panel Package:
 - EMSplus11 modulating energy management system with smart controls
 - Built-in VFDs
 - Duct Temperature Sensors in all risers
 - Room Temperature Sensor
 - Configurable through Touch Screen Interface
 - EMS Duct Thermostat
 - INVERTER DUTY THREE PHASE MOTORS REQUIRED

No alternate manufacturers will be accepted for this item.

ITEM #70 FILLER FAUCET, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

Fisher Model 4731. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Wall mount faucet, 1/2" connection
- 1 ea. Wall mount bracket
- All necessary components for proper install and operation

Or as manufactured by Component Hardware or T&S Brass.

ITEM #71 SUPPLY PLENUM, MAKE-UP AIR – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #69, Exhaust Hood

No alternate manufacturers will be accepted for this item.

ITEM #72 POT RACK, HOOD MOUNT – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape, and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Mounting height: 96" above finished floor
- Welded/ secured at front face of exhaust hood
- 50 ea. Stainless steel pot-hooks

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #73 EXHAUST HOOD, CONTROL PANEL – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #69, Exhaust Hood

No alternate manufacturers will be accepted for this item.

ITEM #74 FIRE PROTECTION SYSTEM – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model UL-300 (R-102). Unit to be installed where shown on drawing in strict accordance to that described in General Specifications. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Provide connection to building Fire Alarm System
- 1 ea. Mechanical Gas valve, up to 3", size to be verified
 - Provide add/ alternate for electric gas valve
- 1 ea. Reset Relay Push Button
 - Only required with use of electric gas valve
- For the protection of equipment beneath Exhaust Hood, Item #69

No alternate manufacturers will be accepted for this item.

ITEM #75 FIRE EXTINGUISHER, WALL MNTD. – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model K-CLASS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- 1 ea. Wet chemical type, Ansulex low pH agent
- 1 ea. 2.5 Gallon tank

- 1 ea. Wall bracket
- 1 ea. Rechargeable
- Wall backing by General Contractor

No alternate manufacturers will be accepted for this item.

ITEM #76 CHEF COUNTER W/ SINK – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Counter Top Material: Stainless Steel, 14 Gauge
- 1 ea. Built-in work sink, 20" L x 16" W x 12" D
- 1 ea. S.S. Removable sink bowl cover
 - Stainless steel, 14 Gauge
 - Finger holes, lift-off
 - Flush inlay with work sink/top
 - Integral bracket, under counter, to hold when not in use
- 1 ea. Waste valve with lever
- 1 ea. Tail piece
- 1 ea. Waste overflow
- 1 ea. Stainless steel faucet with 12" swing spout and wrist action handles, 1/2" connections
- Cabinet/Door to be flush frame design
- Stainless steel integrated handles, horizontal orientation
- Cylinder locks, keyed alike, as required
- Intermediate stainless steel solid shelves, adjustable
- Stainless steel legs, 6" adjustable

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #77 SPARE NUMBER

ITEM #78 DROP-IN, BAIN MARIE, HOT – QTY. AS PER PLAN & SCHEDULE

Wells Model HT-300. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 208/1, Hardwired
- 1 ea. Divider bar, 22106
- 1 ea. Drain screen, 21709

Or as manufactured by Hatco or Piper Products.

ITEM #79 OVERSHELF, 2-TIER, CEILING MNTD. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Shelf Material: Stainless steel, 16 Gauge
- Mounting height: 56" above finished floor, first tier

- Mounting height: 68" above finished floor, second tier

Or as manufactured by Aero Mfg. or EMI New Jersey.

ITEM #80 WARMER, FOOD OVERHEAD – QTY. AS PER PLAN & SCHEDULE

Hatco Model GRAHL-48. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Mounting option: Stainless steel hanger tabs
- Concealed wiring thru overshelf posts
- 1 ea. Built-in toggle/pilot switch
- 1 ea. Stainless steel housing color
- Mounted in Item #79, Overshelf

No alternate manufacturers will be accepted for this item.

ITEM #81 REFRIGERATOR, SANDWICH/ SALAD PREP. – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model SPE60HC-16C. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- 1 ea. Self-contained refrigeration
- 1 ea. Composite cutting board
- 1 ea. Pan dividers
- 1 ea. Digital thermometer, external
- 2 ea. Barrel locks
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- 1 ea. Energy Star® Certified
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #82 HAND SINK, WALL MTND. – QTY. AS PER PLAN & SCHEDULE

IMC/ Teddy Model WS. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- 1 ea. Electronic faucet, gooseneck
- 1 ea. Soap dispenser
- 1 ea. Towel dispenser
- 1 ea. Left and right splash guards
- Wall backing by General Contractor

Or as manufactured by Aero Mfg. or Eagle Group/Metal Masters.

ITEM #83 FREEZER, REACH-IN – QTY. AS PER PLAN & SCHEDULE

Beverage Air Model HFPS2HC-1S. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, NEMA 5-15P
- Verify door hinging
- Exterior Finish: Stainless Steel
- Interior Finish: Stainless Steel
- 1 ea. Self-contained refrigeration
- 2 ea. Full solid doors with locks
- 3 ea. Stainless steel shelves per compartment, top section
- 1 ea. Digital temperature control system
- 1 ea. Three year parts warranty
- 1 ea. Three year labor warranty
- Adjustable universal pan slides 1-1/2" O.C. to hold 18" x 26" or 12" x 20" pans, bottom section
- Mounted on heavy duty casters, front two with brakes

Or as manufactured by Continental Refrigerator or True Mfg.

ITEM #84 EXHAUST HOOD, TYPE I – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Size, shape and installed where shown on drawing. This is a fabricated item and is to be constructed as described in General Specifications and as further detailed on contract drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Construction: 100% 304 stainless steel
- Filters: Stainless steel captrate solo with hook
- Insulation: Integral air / insulation barriers at perimeter and top, 0" clearance to combustibles
- Structural front panel, insulated
- Wall / Island canopy hood, length / size as per contract documents
- 1 ea. Front perforated supply plenum (PSP) with built-in 3" back standoff
- Insulation for PSP housing, as required
- 3 ea. LED lights with bulbs
- Stainless steel field wrap, approximately 18" high on all exposed sides
- Adjustable exhaust air volume control damper
- Hood Control Panel Package:
 - EMSplus11 modulating energy management system with smart controls
 - Built-in VFDs
 - Duct Temperature Sensors in all risers
 - Room Temperature Sensor
 - Configurable through Touch Screen Interface
 - EMS Duct Thermostat
 - INVERTER DUTY THREE PHASE MOTORS REQUIRED

No alternate manufacturers will be accepted for this item.

ITEM #85 SUPPLY PLENUM, MAKE-UP AIR – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #84, Exhaust Hood

No alternate manufacturers will be accepted for this item.

ITEM #86 EXHAUST HOOD, CONTROL PANEL – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model Custom. Unit to be installed where shown on drawings. Provided with all features, options and accessories, per quantity required, as indicated:

- Included as part of Item #84, Exhaust Hood

No alternate manufacturers will be accepted for this item.

ITEM #87 FIRE PROTECTION SYSTEM – QTY. AS PER PLAN & SCHEDULE

Captive Aire Model UL-300 (R-102). Unit to be installed where shown on drawing in strict accordance to that described in General Specifications. Provided with all features, options and accessories, per quantity required, as indicated:

- Electrical: 120/1, Hardwired
- Provide connection to building Fire Alarm System
- 1 ea. Mechanical Gas valve, up to 3", size to be verified
 - Provide add/ alternate for electric gas valve
- 1 ea. Reset Relay Push Button
 - Only required with use of electric gas valve
- For the protection of equipment beneath Exhaust Hood, Item #84

No alternate manufacturers will be accepted for this item.

PART 3 - EXECUTION

3.01 GENERAL RELATED CONDITIONS

- A. In each item of equipment hereinafter specified under the "Equipment Schedule," these specifications shall only identify each respective item by name and model number, as well as list various component parts/ accessories provided for same.
- B. Therefore, it shall be intended that these respective items and their component parts shall be of material (mounted where applicable) constructed and furnished in strict accordance to that described in the general specifications for these items and integrally constructed where applicable.
- C. It shall also be intended that where buy-out (prefabricated) items are specified, same shall be definitely furnished with all the accessories as normally furnished by manufacturer for these items. Also in strict accordance with current manufacturer's engineering data sheet for each respective item.
- D. Should no list or description be provided for various component parts/ accessories, the Kitchen Equipment Contractor is responsible to provide required components for full and proper operation of said equipment.

3.02 EXAMINATION OF PLANS AND SPECIFICATIONS

- A. Prospective bidders for this work must examine these plans and specifications carefully before bidding and must request from Architect and/or Food Service Consultant in writing for an interpretation or correction of every apparent ambiguity, inconsistency or error therein. If necessary, such interpretation or correction shall be issued in writing as an addendum.

3.03 SPECIAL NOTES

- A. It shall be the responsibility of Kitchen Equipment Contractor to make as many visits to the job site as is necessary and to keep up to date with progress made in field on the installation of all necessary rough-in to adequately and properly operate and accommodate all equipment furnished by said Contractor and as shown on drawings. Include this service in bid.
- B. Kitchen Equipment Contractor to cooperate with all trades so that the end results of his/her work will be a satisfactory, approved and accepted installation. Written reports of each visit shall be sent promptly to the Architect and/or Food Service Consultant.

3.04 COORDINATION

- A. Procedure of construction is of paramount importance in executions of this project. Kitchen Equipment Contractor to carry on his/her work so that no delay in his/her operations or those of any other contractors occurs at any time.
- B. Kitchen Equipment Contractor to verify with Architect and/or Food Service Consultant as to opening date of the food service area(s) and schedule his/her fabrication and purchasing of equipment so that all will be in readiness, installed, connected, tested, demonstrated, etc., in ample time prior to the scheduled opening date.

3.05 DELIVERY AND INSTALLATION

- A. Shall mean and intend that Kitchen Equipment Contractor shall deliver and assemble all equipment of contract in 1 piece in required locations in building, ready for water, waste, gas, electric and ventilating connections required by other trades.
- B. Any pieces of equipment may be delivered sectionally, but all working surfaces butt-welded, ground and polished on premises so that upon completion, such item of equipment will have true, smooth, even and continuous surfaces. Butt joining and filling with solder not permitted.
- C. Kitchen Equipment Contractor must verify door sizes, delivery platform, elevator size, etc., effecting delivery to food service area(s) for all items of equipment.

3.06 RESERVATIONS AND CONDITIONS

- A. It is the intent of this specification to complete the installation of all equipment covered herein in all phases ready for operation. Contractor shall carefully examine the plans and specifications for building construction contracts and determine therefrom the extent of his operations in all respects. All labor and materials not included in building construction contracts necessary to accomplish this intent are hereby included in this contract.
- B. Kitchen Equipment Contractor shall attend job meetings when required for purpose of coordinating his/her work with other trades.

- C. All equipment shall be received at the building fully protected. It will be the responsibility of the Kitchen Equipment Contractor to protect the equipment until completely installed and accepted.

3.07 NOT USED

END OF SECTION 114000