



Comm No: 233099

Project Manual

Divisions 00-26

2024 Bonnie Brook Maintenance Building Roof Replacement

Waukegan Park District

Waukegan, Illinois

Book 1 of 1

Wold Architects and Engineers
220 North Smith Street, Suite 310
Palatine, IL 60067
woldae.com | 847 241 6100

**PLANNERS
ARCHITECTS
ENGINEERS**

**SECTION 00 01 01
PROJECT TITLE PAGE**

PROJECT MANUAL

PROJECT IDENTIFICATION

BIDDING REQUIREMENTS

CONDITIONS OF THE CONTRACT

GENERAL REQUIREMENTS

AND SPECIFICATIONS

FOR

2024 Bonnie Brook Maintenance Building Roof Replacement
2231 South Bonnie Brook Lane
Waukegan, Illinois 60087

Waukegan Park District
1324 Golf Road
Waukegan, Illinois 60087

BID TIME: 2:00 p.m.

BID DATE: June 25, 2024

BID PLACE:

Waukegan Park District Parks Maintenance Facility
2211 Ernie Krueger Circle
Waukegan, Illinois 60087

ISSUE DATE: June 3, 2024

END OF SECTION 00 01 01

**SECTION 00 01 03
PROJECT DIRECTORY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Identification of project team members and their contact information.

1.02 OWNER:

- A. Name: Waukegan Park District
 - 1. Address: 1324 Golf Road, Waukegan, Illinois 60087

1.03 CONSULTANTS:

- A. Architect:
 - 1. Company Name: Wold Architects and Engineers
 - a. Address: 220 North Smith Street, Suite 310, Palatine, Illinois 60067
 - b. Telephone: (847) 241-6100
- B. Mechanical Engineering Consultant:
 - 1. Company Name: Wold Architects and Engineers
 - a. Address: 220 North Smith Street, Suite 310, Palatine, Illinois 60067
 - b. Telephone: (847) 241-6100
- C. Electrical Engineering Consultant:
 - 1. Company Name: Wold Architects and Engineers
 - a. Address: 220 North Smith Street, Suite 310, Palatine, Illinois 60067
 - b. Telephone: (847) 241-6100

PART 2 PRODUCTS - NOT USED

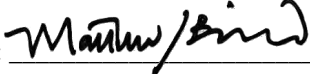
PART 3 EXECUTION - NOT USED

END OF SECTION 00 01 03

SECTION 00 01 05
CERTIFICATIONS PAGE
2024 Bonnie Brook Maintenance Building Roof Replacement
Waukegan Park District


Architect: Wold Architects and Engineers

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Architect under the laws of the State of Illinois.

Signature: 
Typed Name: Matt Bickel
Registration: 001.020883
Date Signed: June 3, 2024

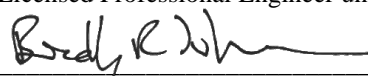
Mechanical Engineer: Wold Architects and Engineers

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.

Signature: 
Typed Name: Matt Verdun
Registration: 062.059546
Date Signed: June 3, 2024

Electrical Engineer: Wold Architects and Engineers

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.

Signature: 
Typed Name: Bradley Johannsen
Registration: 062.060077
Date Signed: June 3, 2024

END OF SECTION 00 01 05

SECTION 00 01 10
TABLE OF CONTENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 01 01 - Project Title Page
- 00 01 03 - Project Directory
- 00 01 05 - Certifications Page
- 00 01 10 - Table of Contents

BIDDING REQUIREMENTS

- 00 11 13 - Notice to Bidders
- 00 21 13 - Instructions to Bidders
- 00 41 00 - Bid Proposal Form*
 - Bid Proposal Checklist
 - Bid Qualification Form
 - Project List
 - Contractor Compliance and Certifications
 - Substance Abuse Prevention Program Certification
 - Employment of Illinois Workers of Public Works Act Certification

GENERAL CONDITIONS OF THE CONTRACT

- 00 72 00 - General Conditions
- 00 73 00 - Supplementary Conditions
- 00 73 43 - State Prevailing Wages

SPECIFICATIONS

DIVISION 01 -- GENERAL REQUIREMENTS

- 01 10 00 - Summary of the Work
- 01 21 00 - Allowances
- 01 22 00 - Unit Prices
- 01 23 00 - Alternates
- 01 25 00 - Substitution Procedures
 - 01 25 01 - Pre-Bid Substitution Request Form
- 01 26 63 - Change Orders
- 01 30 00 - Administrative Requirements
- 01 31 26 - Electronic Background Documents
- 01 31 27 - Electronic Background Documents-Attachment A
- 01 32 16 - Construction Progress Schedule
- 01 50 00 - Temporary Facilities and Controls
- 01 70 00 - Execution and Closeout Requirements
- 01 78 00 - Closeout Submittals
- 01 79 00 - Demonstration and Training

DIVISION 02 -- EXISTING CONDITIONS

- 02 41 00 - Demolition

DIVISION 03 -- (NOT USED)

DIVISION 04 -- MASONRY

- 04 20 00 - Non-Bearing Unit Masonry

DIVISION 05 -- METALS

- 05 50 00 - Metal Fabrications

DIVISION 06 -- WOOD, PLASTICS, AND COMPOSITES

- 06 10 53 - Rough Carpentry-Wood Blocking

DIVISION 07 -- THERMAL AND MOISTURE PROTECTION

- 07 21 00 - Insulation
- 07 31 13 - Asphalt Shingles

07 53 00 - EPDM Membrane Roofing
07 62 00 - Sheet Metal Coping and Flashing
07 92 00 - Joint Sealants

DIVISION 08 -- OPENINGS

08 36 00 - Sectional Metal Overhead Doors

DIVISION 09 -- FINISHES

09 90 00 - Painting and Coating

DIVISION 10 -22 (NOT USED)

DIVISION 23 -- HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 51 00 - Breechings, Chimneys, and Stacks

DIVISION 24- 25 (NOT USED)

DIVISION 26 -- ELECTRICAL

26 00 01 - Electrical Systems

DIVISION 27-49 (NOT USED)

END OF SECTION 00 01 10

NOTICE TO BIDDERS

The Waukegan Park District, Lake County, Illinois (“Owner” or “Park District”), invites bids for the following project:

1. 2024 Bonnie Brook Maintenance Building Roof Replacement

Bid Documents, including Instructions to Bidders, Drawings, technical Specifications, General and any Special Conditions and Bid Forms including required Contractor certifications, and Prevailing Wage Determination and Supersedes Notice are available **electronically at www.3-arc.com**

Bidding documents, including the Proposal Form, Drawings and Specifications, will also be provided to the following:

Construction Data Company (ConstructConnect), (800) 652-0008, www.cdcnews.com

Construction Market Data (ConstructConnect), (800) 424-3996, www.cmdgroup.com

Dodge Data & Analytics, (877) 784-9556, www.construction.com

Greater Peoria Contractors & Suppliers Association, (309) 692-5710, www.gpcsa.org

iSqFt (ConstructConnect), (800) 364-2059, www.isqft.com

Master Builders of Iowa, (800) 362-2578, www.mbionline.com

Northern Illinois Building Contractors Association, (815) 229-5636, <https://nibca.build/>

American Reprographics Company (www.e-arc.com), 640 North LaSalle Street, Suite 240, Chicago, Illinois, will have complete sets of the Bidding Documents to prospective bidders and subcontractors available for download through their Public Planroom under the “Print Center” link on their homepage. The Bid Documents will be available about June 3, 2024. There is no cost to download the drawings, however, prospective bidders must provide all requested information when completing the download process in order that they will receive proper updates.

A pre-bid meeting will be held at Bonnie Brook Golf Course Maintenance Building at 2231 South Bonnie Brook Lane, Waukegan, Illinois, at 8 a.m. on Monday, June 17, 2024. This meeting will be used to review the Specifications and give any Bidders the opportunity to discuss any concerns with the Owner and/or Architect. **Attendance at this meeting of all persons desiring to bid on this Project is highly recommended.**

Each bid shall be placed in a sealed envelope and clearly marked “SEALED BID: Waukegan Park District, “2024 Bonnie Brook Maintenance Building Roof Replacement”. The envelope shall be addressed and delivered to and received by the Park District at the following location: Waukegan Park District Parks Maintenance Facility, 2211 Ernie Krueger Circle, Waukegan, Illinois 60087. No responsibility shall be attached to any person for premature opening of a bid not properly identified.

Bids shall be received until 2:00 p.m. on Tuesday, June 25, 2024. Immediately thereafter, the bids will be publicly opened and read aloud. Bids received after that time or at a different location will be rejected.

The Waukegan Park District reserves the right to waive technicalities, to accept or reject any or all bids, to accept only portions of a bid and reject the remainder. Owner will award the Contract to the lowest most responsible and responsive Bidder, as determined by Owner. In considering the Bidder's responsibility, the Owner may evaluate, among other factors, the ability of the Bidder to provide experienced labor sufficient in numbers to timely and properly complete the services, the financial capability of the Bidder, and the performance of the Bidder on other projects.

Bids shall not include federal excise tax or state sales tax for materials to be incorporated in, or totally consumed in the prosecution of the Work. A tax exemption certificate will be furnished by the Park District at the request of the Bidder. The District's tax exemption number shall only be used by the successful Bidder for the Work of this Project.

No bid may be withdrawn, and all bids shall remain firm for sixty (60) days after the bid opening.

The Work of this Project is subject to the Illinois *Prevailing Wage Act*, 820 ILCS 130/0.01 *et seq.* A prevailing wage determination has been made by the Park District, which is the same as that determined by the Illinois Department of Labor for public works projects in Lake County. The Contract entered into for the Work will be drawn in compliance with said law and proposals should be prepared accordingly and provide for payment of all laborers, workmen, and mechanics needed to perform the Work at no less than the prevailing rate of wages (or the prevailing rate for legal holiday and overtime work) for each craft, type of worker, or mechanic.

The Contractor(s) selected will also be required to comply with all applicable federal, state and local laws, rules, regulations and executive orders, including but not limited to those pertaining to equal employment opportunity. State law mandates an open and competitive bidding process and requires that publicly procured contracts be awarded to the lowest responsible and responsive bidder with no demonstrated preference based on the bidder's location, race and gender. Therefore, the Park District is unable to give preference to competitively bid projects, but does encourage submission from local, women, and minority bidders.

All bids must be accompanied by cashier's check or bid bond payable to the order of the Waukegan Park District for ten percent (10%) of the amount of the bid as provided in the Instructions to Bidders. No proposals or bids will be considered unless accompanied by such bond or check.

By Order of the Board of Park Commissioners of the
Waukegan Park District

Jay Lerner, Executive Director

Waukegan Park District (847) 360-4725

PUBLISHED DATE: JUNE 5, 2024

SECTION 1: INSTRUCTIONS TO BIDDERS

1.01 GENERAL

The following instructions relate to the proper form and method for submitting the Bid Proposal, the accompanying surety, the provisions for the letting of Contracts, and to such other matters.

1.02 PREPARATION AND SUBMISSION OF BIDS

Each bid must be placed in an opaque-sealed envelope and clearly marked "**SEALED BID: Bonnie Brook Maintenance Building Roof Replacement,**" and addressed and delivered to and received by the Park District at the following location: **Waukegan Park District Parks Maintenance Facility, 2211 Ernie Krueger Circle, Waukegan, Illinois 60087.** Bids shall be received until **2:00 p.m. on Tuesday, June 25, 2024.** Immediately thereafter, the bids will be publicly opened and read aloud. Bids arriving after the specified time or at a different location will be rejected and will be returned unopened, including mailed bids regardless of when post marked.

Bid Documents, including Instructions to Bidders, Drawings, technical Specifications, General and any Special Conditions and Bid Forms including required Contractor certifications, and Prevailing Wage Determination and Supersedes Notice are available **electronically at www.e-arc.com.**

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A Pre-bid Meeting will be held at Bonnie Brook Golf Course Maintenance Building at 2231 South Bonnie Brook Lane, **Waukegan, Illinois, at 8:00 a.m. on Monday, June 17, 2024.** This meeting will be used to review the Specifications and give any Bidders the opportunity to discuss any concerns with the Owner. **Attendance at this meeting of all persons desiring to bid on this Project is highly recommended.**

It is the sole responsibility of the Bidder to see that his/her bid is received in proper time. **No faxed or e-mail bid or modification of a bid will be considered.** The Park District is not responsible for the premature opening of bids not marked as required. Any bid opened prematurely due to the failure of the Bidder to mark the envelope in accordance with these Bid Documents may be considered non-responsive. Bidders' prices are to include the delivery of all materials; including plant, equipment, supplies, tools, scaffolding, transportation, insurances, bonds, warranties, and all other items and facilities, and the performance of all labor and services, necessary for the proper completion of the Work except as may be otherwise expressly provided in the Contract Documents. Bids shall not include federal excise

tax or state sales tax for materials to be incorporated in, or totally consumed in the prosecution of, the Work. An exemption certificate will be furnished by the Park District upon request of the Bidder.

Bidder must acknowledge all Addenda received in the spaces provided on the Contractor Bid Form. By submitting a bid, Bidder indicates that all considerations issued by Addendum are incorporated in the bid.

As part of the attached Bid Proposal Form will be one or more certifications regarding the Bidder's compliance with applicable laws. **Failure of a Bidder to complete/submit a required certification shall be the basis for immediate rejection of that Bidder's bid.** The certification of the successful Bidder shall become a part of the Contract with the Park District.

The Bidder shall submit its prices on the attached Contractor Bid Form. The Bid Form shall be executed properly and all writing, including all signatures, shall be with black ink. Failure to use the Bid Proposal Form provided may result in rejection of the bid. Do not detach any portion of this document; invalidation of the bid could result.

The Bidder shall specify in figures, in the places provided, a price for each of the separate items called for in the Bid Form.

1.03 REQUIREMENTS OF BIDDERS

Bidders must be able to demonstrate that they: (1) have experience in performing, have successfully performed and are still actively engaged in performing work similar in kind and scope to the Work of the Project; (2) are able to show that they have adequate laborers and materials to successfully complete the Work as indicated in the Bid Documents and within the time required by the Bid Documents. The Contractor shall not have been debarred on determined ineligible for public contracts by any governmental agency.

The following information must be attached to the bid proposal. Failure to do so may result in disqualification of the Bidder.

On a separate sheet, **list all construction projects your organization has in progress**, giving the name of the project, project description, project address, owner and telephone number, architect and telephone number, contract amount, percent complete, and scheduled completion date.

On a separate sheet, (see Project List page) list all construction projects your organization has completed in the past three years, which are comparable in scope, giving the name of the project, project description, client and telephone number, architect and telephone number. Also provide the original contract amount, the final contract amount, the final completion date provided for in the contract and the actual date of final completion. Where the final contract amount is materially greater than the contract amount included in the contract at the time of execution by both parties, provide an explanation of the reason(s) for the increase. Where the actual dates of final completion differ substantially from those dates as included in the contract at time of execution by both parties, explain the reason for the delay in the substantial and/or final completion of the Work.

On a separate sheet, **list all administrative proceedings and litigation filed by or against Bidder in the past five (5) years**, including the name and case number, name/jurisdiction of the court or administrative agency, and a summary of each claim/case, including current status and if no longer pending, the disposition. The foregoing includes but is not limited to information regarding any proceedings and actions taken by any governmental agency to debar or disqualify the Bidder from bidding on public contracts, including the name of the agency initiating the proceeding/action, the nature of the proceeding/action, the claimed basis for the proceeding/action and the current status or disposition of the proceeding/action.

On a separate sheet, **provide information with respect to all instances in which Bidder has been rejected for not being a responsible bidder**, giving the name of the project, project description, project address, owner and telephone number, architect and telephone number, contract amount, and an explanation of the circumstances surrounding the rejection.

On a separate sheet, **provide a list of all contracts to which you were a party and with respect to which you were declared to be in breach of one or more provisions**, giving a the type of contract, the project location where applicable, the names and addresses of the parties to the contract, the name of the party declaring the breach, the nature of the claimed breach and current status or resolution of the claim. If a construction contract, also provide the name, address and telephone number of the Architect and, if applicable also the Construction Manager or Owner's representative.

Other required submittals include: Bid proposal; Contractor's Compliance and Certification Attachment/ Substance Abuse Prevention Program Certification. **Failure of a Bidder to complete/submit these documents may be the basis for immediate rejection of that Bidder's bid.**

1.04 EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS

The Bidder shall visit the site(s) of the proposed Work and become fully acquainted with conditions, as they exist, and shall undertake such additional inquiry and investigation as the Bidder shall deem necessary to fully understand the requirements, facilities, possible difficulties and restrictions attending the execution of the Work under the Contract. The Bidder shall thoroughly examine and be familiar with all of the Bid Documents including but not limited to the Drawings and the Specifications. Any conflicts or discrepancies found between or among the Bid Documents including but not limited to the Drawings and Specifications and the site conditions, or any errors, omissions, or ambiguities contained in the documents shall be immediately reported to the Park District and the Architect [and if a Construction Manager has been designated for the Project, also to the Construction Manager.] and written clarification requested prior to submission of a bid.

The failure or omission of any Bidder to obtain, receive or carefully examine any form, instrument, or information or to visit the Project site(s), and become knowledgeable with respect to conditions there existing, or to seek needed clarification shall in no way relieve any Bidder from any obligations with respect to his bid. By submitting a bid, the Bidder agrees, represents and warrants that he has undertaken such investigation as he deemed necessary, has carefully examined the site(s) and the Bid Documents, has obtained all needed clarifications and where the Bid Documents indicate in any part of the Work, that a given result be produced, that the Bid Documents are adequate and the required result can be produced as indicated. Once the award has been made, failure to have undertaken and completed the foregoing tasks shall not be a cause to alter the original Contract or to request additional compensation.

1.05 ACCEPTANCE OR REJECTION OF BIDS

The Park District may accept the bid of, and award the contract for the Work to, the lowest responsive and responsible Bidder as determined by and in the sole discretion of the Park District.

The Park District reserves the right to: (1) reject all bids; (2) reject only certain bids which are non-conforming or non-responsive to the bid requirements; (3) accept only a portion, part or specific items of Work of bids which are separately set forth on the Contractor Bid Form and reject others, as the Owner shall in its sole discretion determine to be in its best interest; and/or (4) award the Contract to the responsible Bidder submitting the lowest bid responsive to the bidding requirements as determined by the Park District .

In the event of a rejection of a portion, part, or certain items of Work of all bids, the bid of each Bidder shall automatically be deemed reduced by the amount of such rejected part or item at the unit price or other cost designated therefor by that Bidder on its submitted Contractor Bid Form. The successful Bidder so selected may not refuse to enter into a Contract with the Owner on the basis that the Owner awarded a Contract for less than all portions or items of the Work specified in the Bid Documents. The Park District's Board of Park Commissioners reserves the right to waive any technicalities or irregularities, and to disregard any informality in the bids and bidding, when in its opinion the best interest of the Park District will be served by such actions and in accordance with applicable law.

1.06 SURETY

All bids must be accompanied by a bid bond or bank cashier's check payable to the Park District for ten percent (10 %) of the amount of the bid and drawn on a responsive and responsible bank doing business in the United States. All bids not accompanied by a bid security, when required, will be rejected.

The bid security of all except the three (3) lowest responsive and responsible Bidders as determined by the Park District will be returned after the decision to accept or reject bids by the Park District's Board of Park Commissioners. The bid security of the successful Bidder will be returned after acceptance by the Park District of an acceptable Performance Bond, Labor and Material/Payment Bond and a certificate of insurance naming the Waukegan Park District as the certificate holder and as additional insured, and the successful Bidder has executed and returned to the Park District the contract for the Work presented by the Park District..

Prior to commencing Work, the successful Bidder shall furnish a **Performance Bond**, and Labor and Material/Payment Bond in the amount of **110% of the Contract Sum**, using a form similar to the AIA-A312-2010 form, or its current equivalent, or one acceptable to Owner, cosigned by a surety company licensed to conduct business in the State of Illinois and with at least an "A" rating and a financial rating of at least "A VII" in the latest edition of the Best Insurance Guide. Said bond shall guarantee the faithful performance of the Work in accordance with the Contract, the payment of all indebtedness incurred for labor and materials, and guarantee correction of Work for a period of one (1) year after Final Completion. **The cost of each bond shall be included in the Contract Sum.** The Bidder and all Subcontractors shall name the Park District as an obligee on all bonds. Said bonds shall meet the requirements of the Illinois Public Construction Bond Act, 30 ILCS 550/0.01 *et seq.* and any further amendments thereto. Bidder shall include in its Performance Bond and Labor and Material Payment Bond such language as shall guarantee performance by the Contractor of all of its obligations indicated by the Contract Documents including but not limited to strict compliance with the Prevailing Wage Act.

The Performance Bond and Labor and Material Payment Bond will become a part of the Contract. The failure of the successful Bidder to enter into the Contract and supply the required bonds and evidence of insurance within ten (10) days after the Contract is presented for signature, or within such extended period as the Park District may grant, shall constitute a default, and the Park District may either award the Contract to the next responsible Bidder, or re-advertise for bids. In the event of such default, the Park District need not return the defaulting Bidder's bid surety and may charge against and recover from the defaulting Bidder the full difference between the amount of the Contract awarded to the defaulting Bidder and may charge against the defaulting Bidder for the full difference between the amount for the bid and the amount for which a Contract for the Work is subsequently executed with another contractor, irrespective of whether the amount thus due exceeds the amount of the defaulting Bidder's bid surety.

1.07 WITHDRAWAL OF BID

Bidders may withdraw or cancel their bids at any time prior to the advertised bid opening time by signing and submitting a request for said withdrawal. After the bid opening time, no bid shall be withdrawn or canceled for a period of sixty (60) calendar days.

1.08 ACCEPTANCE AND CONTRACT

The acceptance of a bid will be by a Notice of Award, signed by a duly authorized representative of the Park District; no other act by the Park District shall constitute the acceptance of a bid. The acceptance of a bid by the Park District shall bind the successful Bidder to execute and perform the Work of the Contract. The successful Bidder to whom the Contract is awarded by the Park District shall sign and deliver to the Park District for execution by the Park District all required copies of the Contract, along with all required insurance and surety documents within ten (10) days after presentation to him of the Contract for signature. In case the Bidder shall fail or neglect to do so, he will be considered as having abandoned the Contract, and as being in default to the Owner. The Owner may thereupon re-advertise or otherwise award said Contract and forfeits the Bid Security.

The Invitation to Bid, Instructions to Bidders, General Conditions, Supplementary and/or Special Conditions, if any, Drawings, Specifications, Contractor Bid Form, Addenda, if any, Contractors Compliance and Certifications Attachment, and Substance Abuse Certification and the Prevailing Wage Determination and Supersedes Notice comprise the Bid Documents. The Bid Documents, together with the Standard /Form of Agreement Between Owner and Contractor AIA Document A107 OR other Agreement, as modified by the Park District and included in these Bid Documents, and the Performance Bond and Labor Material Payment Bond and proof of insurance comprise the Contract Documents.

1.09 INTERPRETATION OF THE CONTRACT DOCUMENTS

The Park District shall in all cases determine the amount or quantity of the several kinds of Work which are to be paid for under this Contract and shall decide all questions which may arise relative to the execution of the Contract on the part of the Contractor, and all estimates and decisions shall be final and conclusive. The Park District shall have the right to make alterations in the lines, grades, plans, forms, or dimensions of the Work herein contemplated either before or after the commencement of the Work. If such alterations diminish the quantity of the Work to be done, they shall not constitute a claim for damage or for anticipated profits on the work dispensed with, or if they increase the amount of Work, such increase shall be paid according to the quantity actually done and at the price or prices stipulated for such Work in the Contract. The Park District reserves the right to approve an equal to or superior to product or equipment required under the specifications, or to reject as not being and equal to or superior to the product or equipment required under the Specifications. If a Bidder is in doubt as to the interpretation of any part of the Bid Documents, or finds errors, discrepancies or omissions from any part of the Bid Documents, he must submit a written request for interpretation thereof not later than five (5) days prior to opening of bids. Address all communications to the Park District and to the Architect [and if a Construction Manager has been designated for the Project, also to the Construction Manager. If an error or omission in the Bid Documents is discovered after the bid opening, the Park District reserves the right (i) to determine whether to require the submission of new bids or, (ii) if the error or omission is of such a nature that it was reasonably discoverable upon a careful review of the Bid Documents, to award the Contract to the lowest responsive and responsible Bidder as determined by the Park District and to require that Contractor to perform the Work in accordance with an issued correction by the Architect/Owner and for the amount bid by the Contractor. Such decisions are final and not subject to recourse. Errors and omissions made by the Bidder cannot be corrected by the Bidder after the bid opening.

1.10 ADDENDA

Any interpretation, correction to, or addition to the Bid Documents will be made by written Addendum and will be delivered by mail, email or fax to each Plan holder. The written Addenda constitute the only interpretations of the Bid Documents; the Park District accepts no responsibility for any other claimed interpretations or communications.

It is the responsibility of each Bidder to verify that he/she has received all Addenda prior to submitting a bid. It is also the responsibility of each Bidder to verify that all subcontractors and material suppliers whose prices are incorporated

in the Bidder's bid are familiar with the Bid Documents in their entirety, including all Addenda issued up to the time of bid opening.

In the event a conflict or omission is discovered in the Bid Documents after the issuing of the last Addendum such that an interpretation cannot be issued by the Park District prior to bidding, the Bidder is directed to estimate on and provide the quantity and quality of material and labor consistent with the overall represented and indicated Work so as to provide all materials, equipment, labor, and services necessary for the completion of the Work in accordance with the Bid Documents.

1.11 SUBSTITUTIONS DURING BIDDING

Unless otherwise indicated, the use of brand names in the Specifications is used for the purpose of establishing a grade or quality. Bidders proposing to use an alternate that is equal to or superior to in every respect to that required by the Specifications must request approval in writing to the Park District at least seven (7) business days prior to the bid opening and mark the item as 'or approved equal'.

Additionally, Bidders requesting approval for use of an alternate must provide certification by the manufacturer that the substitute proposed is equal to or superior in every respect to that required by the Bid Documents, and that its in-place performance will be equal to or superior to the product or equipment specified in the application indicated. The Bidder, in submitting the request for substitution, waives the right to additional payment or an extension of Contract Time because of the failure of the substitute to perform as represented in the request for substitution.

The Park District may request additional information or documentation necessary for evaluation of the request for substitution. The Park District will notify all Bidders of acceptance of the proposed substitute by means of an Addendum to the Bid Documents. Park District's approval of a substitute during bidding does not relieve the Contractor of the responsibility to submit required shop drawings and to comply with all other requirements of the Contract Documents, including but not limited to proper performance of all components of the Work and suitability for the uses specified.

Bids proposing alternates not previously approved by the Park District will be considered non-responsive and rejected. The Park District reserves the right to determine whether a substituted selection, in its sole judgment, is equal to or better quality and therefore an acceptable alternate. Such decisions are final and not subject to recourse.

1.12 COMMENCEMENT AND COMPLETION DATES

Commencement Date: The Commencement Date shall be the date established by Owner in a Notice to Proceed issued to the Contractor. It is currently anticipated that Contract award will occur on or about **July 9, 2024**, with a notice to proceed to be issued shortly thereafter, subject to the Contractor providing the required bonds, evidence of insurance and other required submissions.

Substantial Completion Date: October 18, 2024

Final Completion: November 15, 2024

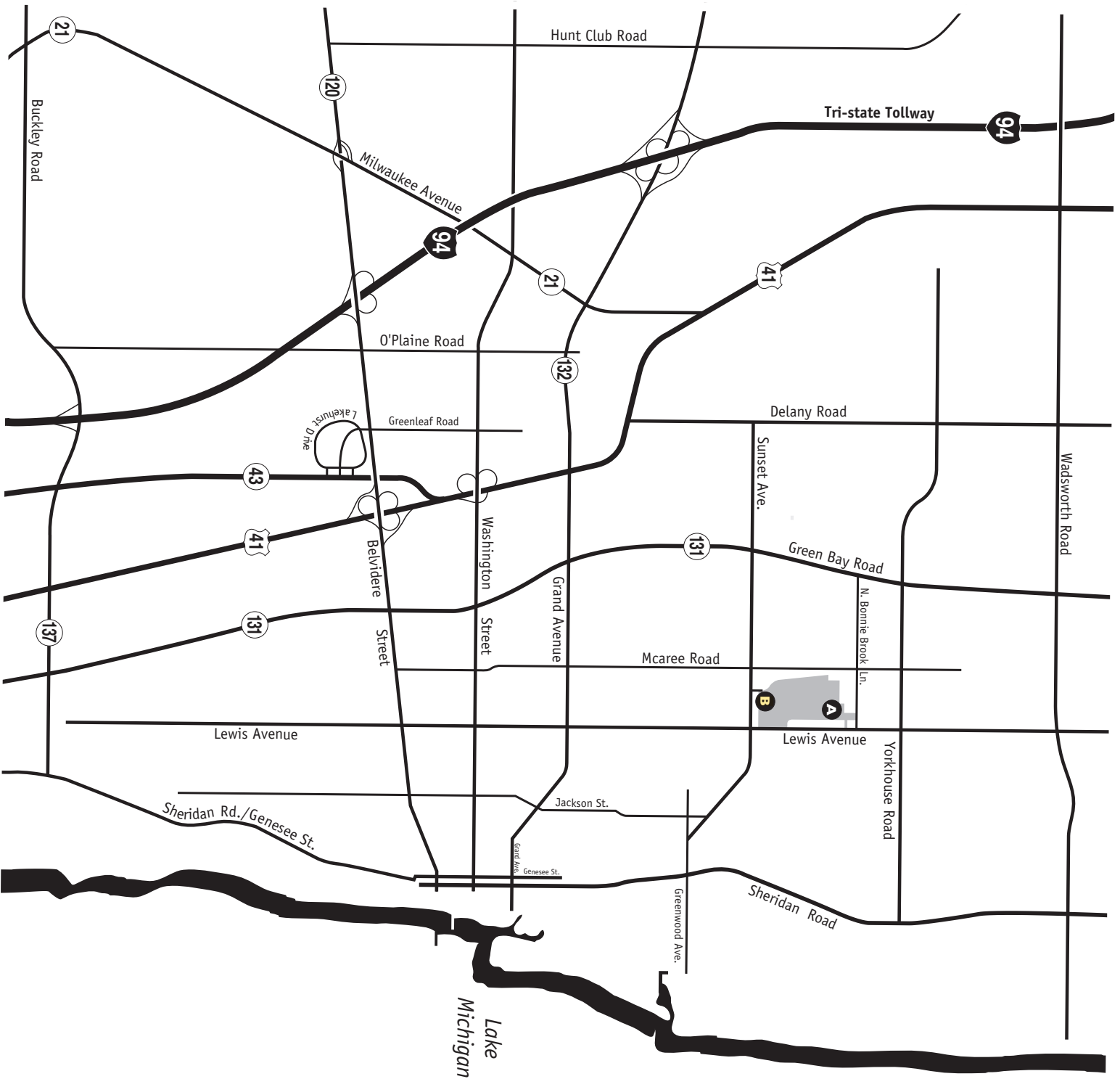
By submission of its bid, the Bidder the Bidder acknowledges, agrees, represents, declares and warrants that it has visited and examined the site, and is fully familiar with and has satisfied itself as to the site and the local and other conditions under which the Work is to be performed, including without limitation, (i) surface conditions of the site and subsurface conditions readily observable or ascertainable upon the exercise of reasonable diligence and all structures and obstructions thereon and thereunder, both natural and manmade; (ii) the nature, location, and character of the general area in which the Project is located, including without limitation, its climatic conditions, available labor supply

and labor costs, and available equipment supply and equipment costs; and (iii) the quality and quantity of all materials, supplies, tools, equipment, labor, and professional services necessary to complete the Work in the manner and within the cost and time frame indicated by the Contract Documents; and has correlated the Bidder's personal observations with the requirements of and matters indicated in or by the proposed Contract Documents

LOCATION MAP

A **Bonnie Brook Clubhouse**
2800 North Lewis Avenue

B **Bonnie Brook Maintenance**
2231 S. Bonnie Brook Lane



- Legend**
- Park Site
 - Major Roads
 - Highways
 - Interstate



**BONNIE BROOK MAINTENANCE BUILDING ROOF REPLACEMENT
WAUKEGAN PARK DISTRICT
WAUKEGAN, ILLINOIS**

BID PROPOSAL FORM

4.01 BID TO:

Waukegan Park District
(hereinafter called "Owner")
2211 Ernie Krueger Circle
Waukegan, IL 60087

4.02 BID FROM:

(hereinafter called "Bidder")

Address

City, State, Zip Code

Email Address

Contact Person

Telephone Number

Fax Number

4.03 BID FOR:

**BONNIE BROOK MAINTENANCE BUILDING ROOF REPLACEMENT
WAUKEGAN, ILLINOIS**

4.04 ACKNOWLEDGEMENT

The undersigned hereby acknowledges receipt of Invitation of Bids, Instructions to Bidders, the Specifications, Drawing, Conditions, Certifications, and other Contract Documents and acknowledges receipt of the following Addenda:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

4.05 AGREEMENT

A. In submitting the Bid, the undersigned agrees:

1. To hold the Bid open for sixty (60) days from submittal date.
2. That the Bidder has carefully examined the Instructions to Bidders, the Drawings and Specifications, and the Project Manual in its entirety, in order to determine how these affect the bid proposal, the forms of the Contract, the required Contract bonds, and duration thereof, and that the Bidder has inspected in detail the site of the proposed Work, and been familiarized with all of the requirements of construction, and of the governing municipalities under whose jurisdiction the Project falls (its codes, ordinances and construction requirements therein), and understands that in making this proposal, the Bidder waives all rights to plead any misunderstanding regarding the same.
3. To enter into and execute a Contract with the Owner if awarded on the basis of this bid, and furnish all bonds and insurance required by the Contract Documents within fourteen (14) days after receiving Notice to Proceed from the Owner.
4. To accomplish the work in accordance with the Contract Documents.
5. To complete the work by the time stipulated in the Contract Documents.
6. That if this proposal is accepted, the Bidder is to provide all of the necessary equipment, tools, apparatus, labor, and other means of construction, and to do all of the Work and to furnish all of the materials specified in the Contract Documents in the manner and at the time therein prescribed, and in accordance with the requirements set forth.
7. To commence Work as specified in the Instructions to Bidders, and to prosecute the Work in such a manner, and with sufficient materials, equipment and labor as will ensure its completion within reasonable time, it being understood and agreed that the completion within such reasonable time is an essential part of this Contract.

8. The Bidder proposes to utilize the products and services of the following Subcontractors and major suppliers for the completion of the Contract. All Subcontractors shall be approved by the Owner prior to start of their Work on the Project. If no Subcontractors or major suppliers are to be used, indicate "NONE".

(1) _____ PH: ____/_____
 Subcontractor/major supplier

 Address

 Work to be performed/materials to be supplied

(2) _____ PH: ____/_____
 Subcontractor/major supplier

 Address

 Work to be performed/materials to be supplied

(3) _____ PH: ____/_____
 Subcontractor/major supplier

 Address

4.06 BID PRICES For completion of all Work shown on the Drawings and Specifications, the Bidder agrees to perform all Work for the following sums:

A. BASE BID PRICE (Guaranteed Maximum Price) including an allowance amount of \$15,000.

TOTAL (WRITTEN OUT) _____ **DOLLARS**
 \$ _____

B. ALTERNATE 1: SECTIONAL METAL OVERHEAD DOOR REPLACEMENT (Guaranteed Maximum Price)

TOTAL (WRITTEN OUT) _____ **DOLLARS**
 \$ _____

C. ALTERNATE 2: INTERIOR PAINTING (Guaranteed Maximum Price)

TOTAL (WRITTEN OUT) _____ DOLLARS

\$ _____

4.07 UNIT PRICE QUOTATIONS

A. The following unit prices are submitted by the undersigned Bidder as a proposed basis for additive or deductive adjustment to the Total Base Bid in the event Contract changes are required involving the items described.

ITEM

UNIT PRICE

- Plywood Decking Replacement _____ \$ _____ (per 4x8 sheet of plywood)
- Hourly Labor Rate _____ \$ _____ (per hour)

4.08 REJECTION AND WITHDRAWAL OF BID

A. In submitting this bid, it is understood that the right is reserved by the Owner to reject any and all bids and to waive any informalities. It is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.

4.09 TIME OF COMPLETION

A. If awarded the Contract, the undersigned agrees to complete all Work covered by this proposal on or before October 18, 2024.

4.10 BID SECURITY

A. Accompanying the proposal is a Bid Bond as surety in the amount of not less than ten percent (10%) of the Total Base Bid payable to Waukegan Park District, which it is agreed will be forfeited if the undersigned fails to execute the Contract in conformity with the Specifications and furnish Performance Bonds, Payment or Labor and Material Bonds, and Certificate of Insurance with Endorsements after notification of the award of the Contract to the undersigned.

4.11 PERFORMANCE/PAYMENT OR LABOR AND MATERIALS BOND

A. The undersigned Bidder agrees to provide Performance, and Payment or Labor and Material Bonds executed in accordance with AIA Document AIA-A312-2010 form, or its current equivalent, or one acceptable to Owner, in the amount of **110% of the Contract Sum** (Total Base Bid and all accepted alternatives and adjustments) the cost of which is included in the Bid.

4.12 CONTRACT DOCUMENTS

A. The successful Bidder may be required to enter into a standard AIA form of Owner-Contractor Agreement appropriate to the form of the project delivery system selected by the Owner (general contractor and/or construction manager) OR other Agreement, as modified by the Owner.

CORPORATION

The Bidder is a Corporation organized and existing under the laws of the State of _____

Print Name

Duly Authorized Officer's Signature

Title

CORPORATE SEAL (above)

PARTNERSHIP

The Bidder is a co-partnership consisting of individual partners whose full names are listed below:

Print Name

(Partner's Signature)

INDIVIDUAL

The Bidder is an individual.

Print Name

Individual's Signature

Bidder must have their signature above notarized below regardless of Bidder Type

Sworn and Subscribed to before me this _____ day of _____, 2024.

My Commission Expires _____, 20__.
Notary Public or other Officer authorized to administer oaths

BID PROPOSAL CHECKLIST

Contractor _____

Project _____

Check box if supplied in sealed bid. See bid packet (section 1.03 and others) in bid packet for details.

Core Items in Submittal

- Bid Bond or Cashier's Check – Signed and/or Notarized
- Bid Addendum Acknowledgement (if applicable) - Completed
- Bid Proposal Form – Completed, Signed with Corporate Seal, and Notarized
- Bid Qualification Form – Completed
- 3 Year Project List - Completed
- Contractor's Compliance – Signed and Notarized
- Substance Abuse Program Certification – Signed

Additional attachments from Section 1.03

- Projects in Progress List
- Administrative and Litigation List
- Instances of Bid Rejection List
- Instances of Breach of Contract List

**BONNIE BROOK MAINTENANCE BUILDING ROOF REPLACEMENT
WAUKEGAN PARK DISTRICT
WAUKEGAN, ILLINOIS**

BID QUALIFICATION FORM

4.13 BIDDER QUALIFICATION

Bidder Name

Address

Telephone Number

Fax Number

Number of years in business under this name: _____

Include with this Proposal the information required under 1.03 Requirements of Bidders in the Instructions to Bidders.
(See attached pages)

PROJECT LIST

List three (3) of the largest projects completed in the past three (3) years which are similar in scope to the **BONNIE BROOK MAINTENANCE BUILDING ROOF REPLACEMENT project**.

1. Project Name _____

Description _____

Client Name _____

Original Contract Amount _____ Final Contract Amount _____

Contract Final Completion Date _____ Actual Final Completion Date _____

Contact Person _____ Phone Number _____ Email _____

Architect/Engineer _____ Phone Number _____ Email _____

2. Project Name _____

Description _____

Client Name _____

Original Contract Amount _____ Final Contract Amount _____

Contract Final Completion Date _____ Actual Final Completion Date _____

Contact Person _____ Phone Number _____ Email _____

Architect/Engineer _____ Phone Number _____ Email _____

3. Project Name _____

Description _____

Client Name _____

Original Contract Amount _____ Final Contract Amount _____

Contract Final Completion Date _____ Actual Final Completion Date _____

Contact Person _____ Phone Number _____ Email _____

Architect/Engineer _____ Phone Number _____ Email _____

IMPORTANT NOTICE OF RESPONSIBILITY FOR PERIODIC REVISIONS TO PREVAILING WAGE RATES AND SUPERSEDES NOTICE

Revisions of the following Prevailing Wage Rates are made periodically by the Illinois Department of Labor. These may be accessed by computer at <https://www2.illinois.gov/idol/laws-rules/conmed/pages/prevailing-wage-rates.aspx>. As required by the Prevailing Wage Act, any and all such revisions supersede the Park District's June determination. Bidders and contractors performing work on this Project are responsible for determining the applicable prevailing wage rates at the time of bid submission and performance of the Work. Failure of a bidder/contractor to make such determination shall not relieve it of its obligations in accordance with the Contract Documents. In consideration for the award to it of the contract for this Project, the contractor agrees that the foregoing notice satisfies any obligation of the public body in charge of this Project to notify the contractor of periodic changes in the prevailing wage rates and the contractor agrees to assume and be solely responsible for, as a material obligation of the contractor under the contract, the obligation to determine periodic revisions of the prevailing wage rates, to notify its subcontractors of such revisions, to post such revisions as required for the posting of wage rates under the Act, and to pay and require its subcontractors to pay wages in accordance with such revised rates.

CONTRACTOR COMPLIANCE AND CERTIFICATIONS

Note: The following certifications form an integral part of the Agreement between the Owner and Contractor. Breach by Contractor of any of the certifications may result in immediate termination of the Contractor's services by Owner.

THE UNDERSIGNED CONTRACTOR HEREBY ACKNOWLEDGES, CERTIFIES, AFFIRMS AND AGREES AS FOLLOWS:

- A. Contractor has carefully read and understands the contents, purpose and legal effect of this document as stated above and hereafter in this document. The certifications contained herein are true, complete and correct in all respects.
- B. Contractor shall abide by and comply with, and in contracts which it has with all persons providing any of the services or Work on this Project on its behalf shall require compliance with, all applicable Federal, State and local laws and rules and regulations including without limitation those relating to 1) fair employment practices, affirmative action and prohibiting discrimination in employment; 2) workers' compensation; 3) workplace safety; 4) wages and claims of laborers, mechanics and other workers, agents, or servants in any manner employed in connection with contracts involving public funds or the development or construction of public works, buildings or facilities; and 5) steel products procurement.
- C. All contracts for this Project are subject to the provisions of the Illinois Prevailing Wage Act (820 ILCS 130/0.01 *et seq.*), providing for the payment of the prevailing rate of wage to all laborers, workmen and mechanics engaged in the Work. Contractor shall pay prevailing rates of wages in accordance with the wage determination included with the Contract Documents and any subsequent determinations issued by the Illinois Department of Labor which shall supersede the determination included in the Contract Documents, all in accordance with applicable law. Contractor is responsible for determining the applicable prevailing wage rates at the time of bid submission and at the time of performance of the Work. Failure of Contractor to make such determination shall not relieve it of its obligations in accordance with the Contract Documents. Contractor shall also comply with all other requirements of the Act including without limitation those pertaining to inclusion of required language in subcontracts, job site posting, maintenance and submission of certified payroll records and inspection of records. Contractor is not barred from entering into public contracts under Section 11a of the Illinois Prevailing Wage Act due to its having been found to have disregarded its obligations under the Act.
- D. To the best of Contractor's knowledge, no officer or employee of Contractor has been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, or any unit of local government, nor has any officer or employee made an admission of guilt of such conduct which is a matter of record.
- E. Contractor is not barred from bidding on or entering into public contracts due to having been convicted of bid-rigging or bid rotating under paragraphs 33E-3 or 33E-4 of the Illinois Criminal Code. Contractor also certifies that no officers or employees of the Contractor have been so convicted and that Contractor is not the successor company or a new company created by the officers or owners of one so convicted. Contractor further certifies that any such conviction occurring after the date of this certification will be reported to the Owner, immediately in writing, if it occurs during the bidding process, or otherwise prior to entering into the Contract therewith.

- F. Pursuant to the Illinois Human Rights Act (775 ILCS 5/2-105), Contractor has a written sexual harassment policy that includes, at a minimum, the following information: (i) a statement on the illegality of sexual harassment; (ii) the definition of sexual harassment under State law; (iii) a description of sexual harassment utilizing examples; (iv) the Contractor's internal complaint process including penalties; (v) the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and directions on how to contact both; and (vi) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act. Contractor further certifies that such policy shall remain in full force and effect. A copy of the policy shall be provided to the Illinois Department of Human Rights upon request.
- G. Contractor shall abide by the "Employment of Illinois Workers on Public Works Act" (30 ILCS 570/0.01 *et seq.*) which stipulates that whenever there is a period of excessive unemployment in Illinois, defined as any month immediately following two (2) consecutive calendar months during which the level of unemployment in Illinois exceeds five percent (5%) as measured by the U.S. Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ only Illinois laborers unless otherwise exempted as so stated in the Act. ("Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident). Other laborers may be used if Illinois laborers are not available or are incapable of performing the particular type of work involved if so certified by the Contractor and approved by the Owner.
- H. (i) Contractor's bid proposal was made without any connection or common interest in the profits anticipated to be derived from the Contract by Contractor with any other persons submitting any bid or proposal for the Contract; (ii) the Contract terms are in all respects fair and the Contract will be entered into by Contractor without collusion or fraud; (iii) no official, officer or employee of the Owner has any direct or indirect financial interest in Contractor's bid proposal or in Contractor, (iv) the Contractor has not directly or indirectly provided, and shall not directly or indirectly provide, funds or other consideration to any person or entity (including, but not limited to, the Owner and the Owner's employees and agents), to procure improperly special or unusual treatment with respect to this Agreement or for the purpose of otherwise improperly influencing the relationship between the Owner and the Contractor. Additionally, the Contractor shall cause all of its officers, directors, employees, (as the case may be) to comply with the restrictions contained in the preceding sentence.
- I. Contractor knows and understands the Equal Employment Opportunity Clause administered by the Illinois Department of Human Rights, which is incorporated herein by this reference, and agrees to comply with the provisions thereof. Contractor further certifies that Contractor is an "equal opportunity employer" as defined by Section 2000 (e) of Chapter 21, Title 42 of the United States Code Annotated and Executive Orders #11246 and #11375 as amended, which are incorporated herein by this reference.
- J. Contractor shall use reasonable effort to employ local, women, and minority. Additionally, Contractor shall use reasonable effort to utilize local, women, and minority owned Subcontractors.
- K. Neither Contractor nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

- L. Contractor is not barred from contracting with the Owner because of any delinquency in the payment of any tax administrated by the Illinois Department of Revenue, unless it is being contested. Contractor further certifies that it understands that making a false statement regarding delinquency in taxes is a Class A misdemeanor and, in addition, voids the Contract and allows the Owner, a municipal entity, to recover in a civil action all amounts paid to the Contractor.

- M. If Contractor has 25 or more employees at the time of letting of the Contract, Contractor knows, understands and acknowledges its obligations under the Illinois Drug Free Workplace Act (30 ILCS 580/1 *et seq.*) and certifies that it will provide a drug-free workplace by taking the actions required under, and otherwise implementing on a continuing basis, Section 3 of the Drug Free Workplace Act. Contractor further certifies that it has not been debarred and is not ineligible for award of this Contract as the result of a violation of the Illinois Drug Free Workplace Act.

- N. Contractor knows, understands and acknowledges its obligations under the Substance Abuse Prevention In Public Works Act, 820 ILCS 265/1 *et seq.* A true and complete copy of Contractor's Substance Abuse Prevention Program Certification is attached to and made a part of this Contractor Compliance and Certification Attachment.

- O. The Contractor shall comply with the requirements and provisions of the Freedom of Information Act (5 ILCS 140/1 *et. seq.*) and, upon request of the Waukegan Park District's designated Freedom of Information Act Officer (FOIA Officer), Contractor shall within two (2) business days of said request, turn over to the FOIA Officer any record in the possession of the Contractor that is deemed a public record under FOIA.

 CONTRACTOR NAME

By: _____ (Signature)

_____ (Printed Name)

Its: _____ (Title)

STATE OF _____)

)SS

COUNTY OF _____)

I, the undersigned, a notary public in and for the State and County, aforesaid, hereby certify that _____ appeared before me this day and, being first duly sworn on oath, acknowledged that he/she executed the foregoing instrument as his/her free act and deed and as the act and deed of the Contractor.

Dated: _____

 (Notary Public)

(SEAL)

SUBSTANCE ABUSE PREVENTION PROGRAM CERTIFICATION

The Substance Abuse Prevention in Public Works Projects Act, 820 ILCS 265/1 et seq., (“Act”) prohibits any employee of the Contractor or any Subcontractor on a public works project to use, possess or be under the influence of a drug or alcohol, as those terms are defined in the Act, while performing work on the project. The Contractor/Subcontractor **[circle one]**, by its undersigned representative, hereby certifies and represents to the Waukegan Park District that **[Contractor/Subcontractor must complete either Part A or Part B below]**:

- A. The Contractor/Subcontractor **[circle one]** has in place for all of its employees not covered by a collective bargaining agreement that deals with the subject of the Act a written substance abuse prevention program, a true and correct copy of which is attached to this certification, which meets or exceeds the requirements of the Substance Abuse Prevention in Public Works Act, 820 ILCS 265/1 et seq. **[Contractor/Subcontractor must attach a copy of its substance abuse prevention program to this Certification.]**

Name of Contractor/Subcontractor (print or type)

Name and Title of Authorized Representative (print or type)

_____ Dated: _____
Signature of Authorized Representative

- B. The Contractor/Subcontractor **[circle one]** has one or more collective bargaining agreements in effect for all of its employees that deal with the subject matter of the Substance Abuse Prevention in Public Works Projects Act, 820 ILCS 265/1 et seq.

Name of Contractor/Subcontractor (print or type)

Name and Title of Authorized Representative (print or type)

_____ Dated: _____
Signature of Authorized Representative

EMPLOYMENT OF ILLINOIS WORKERS OF PUBLIC WORKS ACT CERTIFICATION

I hereby certify that I have been provided with a copy of the Employment of Illinois Workers of Public Works Act (Page 33, Section G.) and that I am in compliance with the workforce requirements. Furthermore, I accept full liability for present and future compliance with the Act throughout the duration of performance under this contract.

CONTRACTOR NAME

By: _____ (Signature)

_____ (Printed Name)

Its: _____ (Title)

SECTION 00 72 00
GENERAL CONDITIONS

The "General Conditions of the Contract for Construction", AIA Document A201, Sixteenth Edition, 2017 is attached after this section.

END OF SECTION 00 72 00



AIA® Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Bonnie Brook Maintenance Building Roof Replacement
2231 South Bonne Brook Lane
Waukegan, Illinois 60087

THE OWNER:

(Name, legal status and address)

Waukegan Park District
1324 Golf Road
Waukegan, Illinois 600087

THE ARCHITECT:

(Name, legal status and address)

Wold Architects and Engineers
220 North Smith Street, Suite 310
Palatine, Illinois 60067

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 OWNER
- 3 CONTRACTOR
- 4 ARCHITECT
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
- 8 TIME
- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK

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.

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

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13	MISCELLANEOUS PROVISIONS
14	TERMINATION OR SUSPENSION OF THE CONTRACT
15	CLAIMS AND DISPUTES



Init.

/

INDEX

(Topics and numbers in bold are Section headings.)

Acceptance of Nonconforming Work

9.6.6, 9.9.3, **12.3**

Acceptance of Work

9.6.6, 9.8.2, 9.9.3, 9.10.1, 9.10.3, **12.3**

Access to Work

3.16, 6.2.1, 12.1

Accident Prevention

10

Acts and Omissions

3.2, 3.3.2, 3.12.8, 3.18, 4.2.3, 8.3.1, 9.5.1, 10.2.5, 10.2.8, 13.3.2, 14.1, 15.1.2, 15.2

Addenda

1.1.1

Additional Costs, Claims for

3.7.4, 3.7.5, 10.3.2, 15.1.5

Additional Inspections and Testing

9.4.2, 9.8.3, 12.2.1, **13.4**

Additional Time, Claims for

3.2.4, 3.7.4, 3.7.5, 3.10.2, 8.3.2, **15.1.6**

Administration of the Contract

3.1.3, **4.2**, 9.4, 9.5

Advertisement or Invitation to Bid

1.1.1

Aesthetic Effect

4.2.13

Allowances

3.8

Applications for Payment

4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5.1, 9.5.4, 9.6.3, 9.7, 9.10

Approvals

2.1.1, 2.3.1, 2.5, 3.1.3, 3.10.2, 3.12.8, 3.12.9, 3.12.10.1, 4.2.7, 9.3.2, 13.4.1

Arbitration

8.3.1, 15.3.2, **15.4**

ARCHITECT

4

Architect, Definition of

4.1.1

Architect, Extent of Authority

2.5, 3.12.7, 4.1.2, 4.2, 5.2, 6.3, 7.1.2, 7.3.4, 7.4, 9.2, 9.3.1, 9.4, 9.5, 9.6.3, 9.8, 9.10.1, 9.10.3, 12.1, 12.2.1, 13.4.1, 13.4.2, 14.2.2, 14.2.4, 15.1.4, 15.2.1

Architect, Limitations of Authority and Responsibility

2.1.1, 3.12.4, 3.12.8, 3.12.10, 4.1.2, 4.2.1, 4.2.2, 4.2.3, 4.2.6, 4.2.7, 4.2.10, 4.2.12, 4.2.13, 5.2.1, 7.4, 9.4.2, 9.5.4, 9.6.4, 15.1.4, 15.2

Architect's Additional Services and Expenses

2.5, 12.2.1, 13.4.2, 13.4.3, 14.2.4

Architect's Administration of the Contract

3.1.3, 3.7.4, 15.2, 9.4.1, 9.5

Architect's Approvals

2.5, 3.1.3, 3.5, 3.10.2, 4.2.7

Architect's Authority to Reject Work

3.5, 4.2.6, 12.1.2, 12.2.1

Architect's Copyright

1.1.7, 1.5

Architect's Decisions

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 6.3, 7.3.4, 7.3.9, 8.1.3, 8.3.1, 9.2, 9.4.1, 9.5, 9.8.4, 9.9.1, 13.4.2, 15.2

Architect's Inspections

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.8.3, 9.9.2, 9.10.1, 13.4

Architect's Instructions

3.2.4, 3.3.1, 4.2.6, 4.2.7, 13.4.2

Architect's Interpretations

4.2.11, 4.2.12

Architect's Project Representative

4.2.10

Architect's Relationship with Contractor

1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2, 3.5, 3.7.4, 3.7.5, 3.9.2, 3.9.3, 3.10, 3.11, 3.12, 3.16, 3.18, 4.1.2, 4.2, 5.2, 6.2.2, 7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3, 11.3, 12, 13.3.2, 13.4, 15.2

Architect's Relationship with Subcontractors

1.1.2, 4.2.3, 4.2.4, 4.2.6, 9.6.3, 9.6.4, 11.3

Architect's Representations

9.4.2, 9.5.1, 9.10.1

Architect's Site Visits

3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4

Asbestos

10.3.1

Attorneys' Fees

3.18.1, 9.6.8, 9.10.2, 10.3.3

Award of Separate Contracts

6.1.1, 6.1.2

Award of Subcontracts and Other Contracts for Portions of the Work

5.2

Basic Definitions

1.1

Bidding Requirements

1.1.1

Binding Dispute Resolution

8.3.1, 9.7, 11.5, 13.1, 15.1.2, 15.1.3, 15.2.1, 15.2.5, 15.2.6.1, 15.3.1, 15.3.2, 15.3.3, 15.4.1

Bonds, Lien

7.3.4.4, 9.6.8, 9.10.2, 9.10.3

Bonds, Performance, and Payment

7.3.4.4, 9.6.7, 9.10.3, **11.1.2**, 11.1.3, **11.5**

Building Information Models Use and Reliance

1.8

Building Permit

3.7.1

Capitalization

1.3

Certificate of Substantial Completion

9.8.3, 9.8.4, 9.8.5

Init.

/

Certificates for Payment

4.2.1, 4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4, 15.1.4

Certificates of Inspection, Testing or Approval
13.4.4

Certificates of Insurance
9.10.2

Change Orders

1.1.1, 3.4.2, 3.7.4, 3.8.2.3, 3.11, 3.12.8, 4.2.8, 5.2.3, 7.1.2, 7.1.3, **7.2**, 7.3.2, 7.3.7, 7.3.9, 7.3.10, 8.3.1, 9.3.1.1, 9.10.3, 10.3.2, 11.2, 11.5, 12.1.2

Change Orders, Definition of

7.2.1

CHANGES IN THE WORK

2.2.2, 3.11, 4.2.8, **7**, 7.2.1, 7.3.1, 7.4, 8.3.1, 9.3.1.1, 11.5

Claims, Definition of

15.1.1

Claims, Notice of
1.6.2, 15.1.3

CLAIMS AND DISPUTES

3.2.4, 6.1.1, 6.3, 7.3.9, 9.3.3, 9.10.4, 10.3.3, **15**, 15.4
Claims and Timely Assertion of Claims
15.4.1

Claims for Additional Cost

3.2.4, 3.3.1, 3.7.4, 7.3.9, 9.5.2, 10.2.5, 10.3.2, **15.1.5**

Claims for Additional Time

3.2.4, 3.3.1, 3.7.4, 6.1.1, 8.3.2, 9.5.2, 10.3.2, **15.1.6**

Concealed or Unknown Conditions, Claims for

3.7.4

Claims for Damages
3.2.4, 3.18, 8.3.3, 9.5.1, 9.6.7, 10.2.5, 10.3.3, 11.3, 11.3.2, 14.2.4, 15.1.7

Claims Subject to Arbitration
15.4.1

Cleaning Up

3.15, 6.3

Commencement of the Work, Conditions Relating to
2.2.1, 3.2.2, 3.4.1, 3.7.1, 3.10.1, 3.12.6, 5.2.1, 5.2.3, 6.2.2, 8.1.2, 8.2.2, 8.3.1, 11.1, 11.2, **15.1.5**

Commencement of the Work, Definition of
8.1.2

Communications

3.9.1, **4.2.4**

Completion, Conditions Relating to
3.4.1, 3.11, 3.15, 4.2.2, 4.2.9, 8.2, 9.4.2, 9.8, 9.9.1, 9.10, 12.2, 14.1.2, 15.1.2

COMPLETION, PAYMENTS AND

9

Completion, Substantial
3.10.1, 4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, 9.8, 9.9.1, 9.10.3, 12.2, 15.1.2
Compliance with Laws
2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14.1.1, 14.2.1.3, 15.2.8, 15.4.2, 15.4.3

Concealed or Unknown Conditions

3.7.4, 4.2.8, 8.3.1, 10.3

Conditions of the Contract

1.1.1, 6.1.1, 6.1.4

Consent, Written

3.4.2, 3.14.2, 4.1.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3, 13.2, 15.4.4.2

Consolidation or Joinder

15.4.4

CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

1.1.4, **6**

Construction Change Directive, Definition of
7.3.1

Construction Change Directives

1.1.1, 3.4.2, 3.11, 3.12.8, 4.2.8, 7.1.1, 7.1.2, 7.1.3, **7.3**, 9.3.1.1

Construction Schedules, Contractor's

3.10, 3.11, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2

Contingent Assignment of Subcontracts

5.4, 14.2.2.2

Continuing Contract Performance

15.1.4

Contract, Definition of

1.1.2

CONTRACT, TERMINATION OR SUSPENSION OF THE

5.4.1.1, 5.4.2, 11.5, **14**

Contract Administration

3.1.3, 4, 9.4, 9.5

Contract Award and Execution, Conditions Relating to

3.7.1, 3.10, 5.2, 6.1

Contract Documents, Copies Furnished and Use of
1.5.2, 2.3.6, 5.3

Contract Documents, Definition of

1.1.1

Contract Sum

2.2.2, 2.2.4, 3.7.4, 3.7.5, 3.8, 3.10.2, 5.2.3, 7.3, 7.4, **9.1**, 9.2, 9.4.2, 9.5.1.4, 9.6.7, 9.7, 10.3.2, 11.5, 12.1.2, 12.3, 14.2.4, 14.3.2, 15.1.4.2, **15.1.5**, **15.2.5**

Contract Sum, Definition of

9.1

9.1

Contract Time

1.1.4, 2.2.1, 2.2.2, 3.7.4, 3.7.5, 3.10.2, 5.2.3, 6.1.5, 7.2.1.3, 7.3.1, 7.3.5, 7.3.6, 7, 7, 7.3.10, 7.4, 8.1.1, 8.2.1, 8.2.3, 8.3.1, 9.5.1, 9.7, 10.3.2, 12.1.1, 12.1.2, 14.3.2, 15.1.4.2, 15.1.6.1, 15.2.5

Contract Time, Definition of

8.1.1

8.1.1

CONTRACTOR

3

Contractor, Definition of

3.1, **6.1.2**

Contractor's Construction and Submittal Schedules

3.10, 3.12.1, 3.12.2, 4.2.3, 6.1.3, 15.1.6.2

Contractor's Employees
2.2.4, 3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2,
10.3, 11.3, 14.1, 14.2.1.1

Contractor's Liability Insurance

11.1

Contractor's Relationship with Separate Contractors
and Owner's Forces

3.12.5, 3.14.2, 4.2.4, 6, 11.3, 12.2.4

Contractor's Relationship with Subcontractors

1.2.2, 2.2.4, 3.3.2, 3.18.1, 3.18.2, 4.2.4, 5, 9.6.2, 9.6.7,
9.10.2, 11.2, 11.3, 11.4

Contractor's Relationship with the Architect

1.1.2, 1.5, 2.3.3, 3.1.3, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.4.2,
3.5.1, 3.7.4, 3.10, 3.11, 3.12, 3.16, 3.18, 4.2, 5.2, 6.2.2,
7, 8.3.1, 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, 9.9, 10.2.6, 10.3,
11.3, 12, 13.4, 15.1.3, 15.2.1

Contractor's Representations

3.2.1, 3.2.2, 3.5, 3.12.6, 6.2.2, 8.2.1, 9.3.3, 9.8.2

Contractor's Responsibility for Those Performing the
Work

3.3.2, 3.18, 5.3, 6.1.3, 6.2, 9.5.1, 10.2.8

Contractor's Review of Contract Documents

3.2

Contractor's Right to Stop the Work

2.2.2, 9.7

Contractor's Right to Terminate the Contract

14.1

Contractor's Submittals

3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 9.2, 9.3, 9.8.2,
9.8.3, 9.9.1, 9.10.2, 9.10.3

Contractor's Superintendent

3.9, 10.2.6

Contractor's Supervision and Construction

Procedures

1.2.2, 3.3, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3,
7.3.4, 7.3.6, 8.2, 10, 12, 14, 15.1.4

Coordination and Correlation

1.2, 3.2.1, 3.3.1, 3.10, 3.12.6, 6.1.3, 6.2.1

Copies Furnished of Drawings and Specifications

1.5, 2.3.6, 3.11

Copyrights

1.5, **3.17**

Correction of Work

2.5, 3.7.3, 9.4.2, 9.8.2, 9.8.3, 9.9.1, 12.1.2, **12.2**, 12.3,
15.1.3.1, 15.1.3.2, 15.2.1

Correlation and Intent of the Contract Documents

1.2

Cost, Definition of

7.3.4

Costs

2.5, 3.2.4, 3.7.3, 3.8.2, 3.15.2, 5.4.2, 6.1.1, 6.2.3,
7.3.3.3, 7.3.4, 7.3.8, 7.3.9, 9.10.2, 10.3.2, 10.3.6, 11.2,
12.1.2, 12.2.1, 12.2.4, 13.4, 14

Cutting and Patching

3.14, 6.2.5

Damage to Construction of Owner or Separate
Contractors

3.14.2, 6.2.4, 10.2.1.2, 10.2.5, 10.4, 12.2.4

Damage to the Work

3.14.2, 9.9.1, 10.2.1.2, 10.2.5, 10.4, 12.2.4

Damages, Claims for

3.2.4, 3.18, 6.1.1, 8.3.3, 9.5.1, 9.6.7, 10.3.3, 11.3.2,
11.3, 14.2.4, 15.1.7

Damages for Delay

6.2.3, 8.3.3, 9.5.1.6, 9.7, 10.3.2, 14.3.2

Date of Commencement of the Work, Definition of

8.1.2

Date of Substantial Completion, Definition of

8.1.3

Day, Definition of

8.1.4

Decisions of the Architect

3.7.4, 4.2.6, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 6.3, 7.3.4,
7.3.9, 8.1.3, 8.3.1, 9.2, 9.4, 9.5.1, 9.8.4, 9.9.1, 13.4.2,
14.2.2, 14.2.4, 15.1, 15.2

Decisions to Withhold Certification

9.4.1, **9.5**, 9.7, 14.1.1.3

Defective or Nonconforming Work, Acceptance,
Rejection and Correction of

2.5, 3.5, 4.2.6, 6.2.3, 9.5.1, 9.5.3, 9.6.6, 9.8.2, 9.9.3,
9.10.4, 12.2.1

Definitions

1.1, 2.1.1, 3.1.1, 3.5, 3.12.1, 3.12.2, 3.12.3, 4.1.1, 5.1,
6.1.2, 7.2.1, 7.3.1, 8.1, 9.1, 9.8.1, 15.1.1

Delays and Extensions of Time

3.2, **3.7.4**, 5.2.3, 7.2.1, 7.3.1, **7.4**, **8.3**, 9.5.1, **9.7**,
10.3.2, **10.4**, 14.3.2, **15.1.6**, 15.2.5

Digital Data Use and Transmission

1.7

Disputes

6.3, 7.3.9, 15.1, 15.2

Documents and Samples at the Site

3.11

Drawings, Definition of

1.1.5

Drawings and Specifications, Use and Ownership of

3.11

Effective Date of Insurance

8.2.2

Emergencies

10.4, 14.1.1.2, **15.1.5**

Employees, Contractor's

3.3.2, 3.4.3, 3.8.1, 3.9, 3.18.2, 4.2.3, 4.2.6, 10.2,
10.3.3, 11.3, 14.1, 14.2.1.1

Equipment, Labor, or Materials

1.1.3, 1.1.6, 3.4, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,
4.2.6, 4.2.7, 5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3,
9.10.2, 10.2.1, 10.2.4, 14.2.1.1, 14.2.1.2

Execution and Progress of the Work

1.1.3, 1.2.1, 1.2.2, 2.3.4, 2.3.6, 3.1, 3.3.1, 3.4.1, 3.7.1,
3.10.1, 3.12, 3.14, 4.2, 6.2.2, 7.1.3, 7.3.6, 8.2, 9.5.1,
9.9.1, 10.2, 10.3, 12.1, 12.2, 14.2, 14.3.1, 15.1.4

Extensions of Time
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3, 7.4, 9.5.1, 9.7, 10.3.2,
10.4, 14.3, 15.1.6, **15.2.5**

Failure of Payment

9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2

Faulty Work

(See Defective or Nonconforming Work)

Final Completion and Final Payment

4.2.1, 4.2.9, 9.8.2, **9.10**, 12.3, 14.2.4, 14.4.3

Financial Arrangements, Owner's

2.2.1, 13.2.2, 14.1.1.4

GENERAL PROVISIONS

1

Governing Law

13.1

Guarantees (See Warranty)

Hazardous Materials and Substances

10.2.4, **10.3**

Identification of Subcontractors and Suppliers

5.2.1

Indemnification

3.17, **3.18**, 9.6.8, 9.10.2, 10.3.3, 11.3

Information and Services Required of the Owner

2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10.1, 6.1.3, 6.1.4, 6.2.5,

9.6.1, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2,

14.1.1.4, 14.1.4, 15.1.4

Initial Decision

15.2

Initial Decision Maker, Definition of

1.1.8

Initial Decision Maker, Decisions

14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5

Initial Decision Maker, Extent of Authority

14.2.4, 15.1.4.2, 15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5

Injury or Damage to Person or Property

10.2.8, 10.4

Inspections

3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,

9.9.2, 9.10.1, 12.2.1, 13.4

Instructions to Bidders

1.1.1

Instructions to the Contractor

3.2.4, 3.3.1, 3.8.1, 5.2.1, 7, 8.2.2, 12, 13.4.2

Instruments of Service, Definition of

1.1.7

Insurance

6.1.1, 7.3.4, 8.2.2, 9.3.2, 9.8.4, 9.9.1, 9.10.2, 10.2.5, **11**

Insurance, Notice of Cancellation or Expiration

11.1.4, 11.2.3

Insurance, Contractor's Liability

11.1

Insurance, Effective Date of

8.2.2, 14.4.2

Insurance, Owner's Liability

11.2

Insurance, Property

10.2.5, 11.2, 11.4, 11.5

Insurance, Stored Materials

9.3.2

INSURANCE AND BONDS

11

Insurance Companies, Consent to Partial Occupancy

9.9.1

Insured loss, Adjustment and Settlement of

11.5

Intent of the Contract Documents

1.2.1, 4.2.7, 4.2.12, 4.2.13

Interest

13.5

Interpretation

1.1.8, 1.2.3, **1.4**, 4.1.1, 5.1, 6.1.2, 15.1.1

Interpretations, Written

4.2.11, 4.2.12

Judgment on Final Award

15.4.2

Labor and Materials, Equipment

1.1.3, 1.1.6, **3.4**, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,

5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2, 10.2.1,

10.2.4, 14.2.1.1, 14.2.1.2

Labor Disputes

8.3.1

Laws and Regulations

1.5, 2.3.2, 3.2.3, 3.2.4, 3.6, 3.7, 3.12.10, 3.13, 9.6.4,

9.9.1, 10.2.2, 13.1, 13.3.1, 13.4.2, 13.5, 14, 15.2.8,

15.4

Liens

2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8

Limitations, Statutes of

12.2.5, 15.1.2, 15.4.1.1

Limitations of Liability

3.2.2, 3.5, 3.12.10, 3.12.10.1, 3.17, 3.18.1, 4.2.6,

4.2.7, 6.2.2, 9.4.2, 9.6.4, 9.6.7, 9.6.8, 10.2.5, 10.3.3,

11.3, 12.2.5, 13.3.1

Limitations of Time

2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2.7,

5.2, 5.3, 5.4.1, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3,

9.4.1, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15,

15.1.2, 15.1.3, 15.1.5

Materials, Hazardous

10.2.4, **10.3**

Materials, Labor, Equipment and

1.1.3, 1.1.6, 3.4.1, 3.5, 3.8.2, 3.8.3, 3.12, 3.13, 3.15.1,

5.2.1, 6.2.1, 7.3.4, 9.3.2, 9.3.3, 9.5.1.3, 9.10.2,

10.2.1.2, 10.2.4, 14.2.1.1, 14.2.1.2

Means, Methods, Techniques, Sequences and

Procedures of Construction

3.3.1, 3.12.10, 4.2.2, 4.2.7, 9.4.2

Mechanic's Lien

2.1.2, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 9.10.4, 15.2.8

Mediation

8.3.1, 15.1.3.2, 15.2.1, 15.2.5, 15.2.6, **15.3**, 15.4.1,

15.4.1.1

Minor Changes in the Work

1.1.1, 3.4.2, 3.12.8, 4.2.8, 7.1, **7.4**

Init.

/

MISCELLANEOUS PROVISIONS

13

Modifications, Definition of

1.1.1

Modifications to the Contract

1.1.1, 1.1.2, 2.5, 3.11, 4.1.2, 4.2.1, 5.2.3, 7, 8.3.1, 9.7, 10.3.2

Mutual Responsibility

6.2

Nonconforming Work, Acceptance of

9.6.6, 9.9.3, **12.3**

Nonconforming Work, Rejection and Correction of
2.4, 2.5, 3.5, 4.2.6, 6.2.4, 9.5.1, 9.8.2, 9.9.3, 9.10.4, 12.2

Notice

1.6, 1.6.1, 1.6.2, 2.1.2, 2.2.2., 2.2.3, 2.2.4, 2.5, 3.2.4, 3.3.1, 3.7.4, 3.7.5, 3.9.2, 3.12.9, 3.12.10, 5.2.1, 7.4, 8.2.2, 9.6.8, 9.7, 9.10.1, 10.2.8, 10.3.2, 11.5, 12.2.2.1, 13.4.1, 13.4.2, 14.1, 14.2.2, 14.4.2, 15.1.3, 15.1.5, 15.1.6, 15.4.1

Notice of Cancellation or Expiration of Insurance

11.1.4, 11.2.3

Notice of Claims

1.6.2, 2.1.2, 3.7.4, 9.6.8, 10.2.8, **15.1.3**, 15.1.5, 15.1.6, 15.2.8, 15.3.2, 15.4.1

Notice of Testing and Inspections

13.4.1, 13.4.2

Observations, Contractor's

3.2, 3.7.4

Occupancy

2.3.1, 9.6.6, 9.8

Orders, Written

1.1.1, 2.4, 3.9.2, 7, 8.2.2, 11.5, 12.1, 12.2.2.1, 13.4.2, 14.3.1

OWNER

2

Owner, Definition of

2.1.1

Owner, Evidence of Financial Arrangements

2.2, 13.2.2, 14.1.1.4

Owner, Information and Services Required of the

2.1.2, **2.2**, 2.3, 3.2.2, 3.12.10, 6.1.3, 6.1.4, 6.2.5, 9.3.2, 9.6.1, 9.6.4, 9.9.2, 9.10.3, 10.3.3, 11.2, 13.4.1, 13.4.2, 14.1.1.4, 14.1.4, 15.1.4

Owner's Authority

1.5, 2.1.1, 2.3.32.4, 2.5, 3.4.2, 3.8.1, 3.12.10, 3.14.2, 4.1.2, 4.2.4, 4.2.9, 5.2.1, 5.2.4, 5.4.1, 6.1, 6.3, 7.2.1, 7.3.1, 8.2.2, 8.3.1, 9.3.2, 9.5.1, 9.6.4, 9.9.1, 9.10.2, 10.3.2, 11.4, 11.5, 12.2.2, 12.3, 13.2.2, 14.3, 14.4, 15.2.7

Owner's Insurance

11.2

Owner's Relationship with Subcontractors

1.1.2, 5.2, 5.3, 5.4, 9.6.4, 9.10.2, 14.2.2

Owner's Right to Carry Out the Work

2.5, 14.2.2

Owner's Right to Clean Up

6.3

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

6.1

Owner's Right to Stop the Work

2.4

Owner's Right to Suspend the Work

14.3

Owner's Right to Terminate the Contract

14.2, 14.4

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

1.1.1, 1.1.6, 1.1.7, **1.5**, 2.3.6, 3.2.2, 3.11, 3.17, 4.2.12, 5.3

Partial Occupancy or Use

9.6.6, **9.9**

Patching, Cutting and

3.14, 6.2.5

Patents

3.17

Payment, Applications for

4.2.5, 7.3.9, 9.2, **9.3**, 9.4, 9.5, 9.6.3, 9.7, 9.8.5, 9.10.1, 14.2.3, 14.2.4, 14.4.3

Payment, Certificates for

4.2.5, 4.2.9, 9.3.3, **9.4**, 9.5, 9.6.1, 9.6.6, 9.7, 9.10.1, 9.10.3, 14.1.1.3, 14.2.4

Payment, Failure of

9.5.1.3, **9.7**, 9.10.2, 13.5, 14.1.1.3, 14.2.1.2

Payment, Final

4.2.1, 4.2.9, **9.10**, 12.3, 14.2.4, 14.4.3

Payment Bond, Performance Bond and

7.3.4.4, 9.6.7, 9.10.3, **11.1.2**

Payments, Progress

9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4

PAYMENTS AND COMPLETION

9

Payments to Subcontractors

5.4.2, 9.5.1.3, 9.6.2, 9.6.3, 9.6.4, 9.6.7, 14.2.1.2
PCB

10.3.1

Performance Bond and Payment Bond

7.3.4.4, 9.6.7, 9.10.3, **11.1.2**

Permits, Fees, Notices and Compliance with Laws

2.3.1, **3.7**, 3.13, 7.3.4.4, 10.2.2

PERSONS AND PROPERTY, PROTECTION OF

10

Polychlorinated Biphenyl

10.3.1

Product Data, Definition of

3.12.2

Product Data and Samples, Shop Drawings

3.11, **3.12**, 4.2.7

Progress and Completion

4.2.2, **8.2**, 9.8, 9.9.1, 14.1.4, 15.1.4

Progress Payments

9.3, **9.6**, 9.8.5, 9.10.3, 14.2.3, 15.1.4

Project, Definition of
1.1.4
Project Representatives
4.2.10
Property Insurance
10.2.5, **11.2**
Proposal Requirements
1.1.1
PROTECTION OF PERSONS AND PROPERTY
10
Regulations and Laws
1.5, 2.3.2, 3.2.3, 3.6, 3.7, 3.12.10, 3.13, 9.6.4, 9.9.1,
10.2.2, 13.1, 13.3, 13.4.1, 13.4.2, 13.5, 14, 15.2.8, 15.4
Rejection of Work
4.2.6, 12.2.1
Releases and Waivers of Liens
9.3.1, 9.10.2
Representations
3.2.1, 3.5, 3.12.6, 8.2.1, 9.3.3, 9.4.2, 9.5.1, 9.10.1
Representatives
2.1.1, 3.1.1, 3.9, 4.1.1, 4.2.10, 13.2.1
Responsibility for Those Performing the Work
3.3.2, 3.18, 4.2.2, 4.2.3, 5.3, 6.1.3, 6.2, 6.3, 9.5.1, 10
Retainage
9.3.1, 9.6.2, 9.8.5, 9.9.1, 9.10.2, 9.10.3
Review of Contract Documents and Field
Conditions by Contractor
3.2, 3.12.7, 6.1.3
Review of Contractor's Submittals by Owner and
Architect
3.10.1, 3.10.2, 3.11, 3.12, 4.2, 5.2, 6.1.3, 9.2, 9.8.2
Review of Shop Drawings, Product Data and Samples
by Contractor
3.12
Rights and Remedies
1.1.2, 2.4, 2.5, 3.5, 3.7.4, 3.15.2, 4.2.6, 5.3, 5.4, 6.1,
6.3, 7.3.1, 8.3, 9.5.1, 9.7, 10.2.5, 10.3, 12.2.1, 12.2.2,
12.2.4, **13.3**, 14, 15.4
Royalties, Patents and Copyrights
3.17
Rules and Notices for Arbitration
15.4.1
Safety of Persons and Property
10.2, 10.4
Safety Precautions and Programs
3.3.1, 4.2.2, 4.2.7, 5.3, **10.1**, 10.2, 10.4
Samples, Definition of
3.12.3
Samples, Shop Drawings, Product Data and
3.11, **3.12**, 4.2.7
Samples at the Site, Documents and
3.11
Schedule of Values
9.2, 9.3.1
Schedules, Construction
3.10, 3.12.1, 3.12.2, 6.1.3, 15.1.6.2

Separate Contracts and Contractors
1.1.4, 3.12.5, 3.14.2, 4.2.4, 4.2.7, 6, 8.3.1, 12.1.2
Separate Contractors, Definition of
6.1.1
Shop Drawings, Definition of
3.12.1
Shop Drawings, Product Data and Samples
3.11, **3.12**, 4.2.7
Site, Use of
3.13, 6.1.1, 6.2.1
Site Inspections
3.2.2, 3.3.3, 3.7.1, 3.7.4, 4.2, 9.9.2, 9.4.2, 9.10.1, 13.4
Site Visits, Architect's
3.7.4, 4.2.2, 4.2.9, 9.4.2, 9.5.1, 9.9.2, 9.10.1, 13.4
Special Inspections and Testing
4.2.6, 12.2.1, 13.4
Specifications, Definition of
1.1.6
Specifications
1.1.1, **1.1.6**, 1.2.2, 1.5, 3.12.10, 3.17, 4.2.14
Statute of Limitations
15.1.2, 15.4.1.1
Stopping the Work
2.2.2, 2.4, 9.7, 10.3, 14.1
Stored Materials
6.2.1, 9.3.2, 10.2.1.2, 10.2.4
Subcontractor, Definition of
5.1.1
SUBCONTRACTORS
5
Subcontractors, Work by
1.2.2, 3.3.2, 3.12.1, 3.18, 4.2.3, 5.2.3, 5.3, 5.4, 9.3.1.2,
9.6.7
Subcontractual Relations
5.3, 5.4, 9.3.1.2, 9.6, 9.10, 10.2.1, 14.1, 14.2.1
Submittals
3.10, 3.11, 3.12, 4.2.7, 5.2.1, 5.2.3, 7.3.4, 9.2, 9.3, 9.8,
9.9.1, 9.10.2, 9.10.3
Submittal Schedule
3.10.2, 3.12.5, 4.2.7
Subrogation, Waivers of
6.1.1, **11.3**
Substances, Hazardous
10.3
Substantial Completion
4.2.9, 8.1.1, 8.1.3, 8.2.3, 9.4.2, **9.8**, 9.9.1, 9.10.3, 12.2,
15.1.2
Substantial Completion, Definition of
9.8.1
Substitution of Subcontractors
5.2.3, 5.2.4
Substitution of Architect
2.3.3
Substitutions of Materials
3.4.2, 3.5, 7.3.8
Sub-subcontractor, Definition of
5.1.2

Subsurface Conditions
3.7.4

Successors and Assigns
13.2

Superintendent
3.9, 10.2.6

Supervision and Construction Procedures
1.2.2, **3.3**, 3.4, 3.12.10, 4.2.2, 4.2.7, 6.1.3, 6.2.4, 7.1.3,
7.3.4, 8.2, 8.3.1, 9.4.2, 10, 12, 14, 15.1.4

Suppliers
1.5, 3.12.1, 4.2.4, 4.2.6, 5.2.1, 9.3, 9.4.2, 9.5.4, 9.6,
9.10.5, 14.2.1

Surety
5.4.1.2, 9.6.8, 9.8.5, 9.10.2, 9.10.3, 11.1.2, 14.2.2,
15.2.7

Surety, Consent of
9.8.5, 9.10.2, 9.10.3

Surveys
1.1.7, 2.3.4

Suspension by the Owner for Convenience
14.3

Suspension of the Work
3.7.5, 5.4.2, 14.3
Suspension or Termination of the Contract
5.4.1.1, 14

Taxes
3.6, 3.8.2.1, 7.3.4.4

Termination by the Contractor
14.1, 15.1.7

Termination by the Owner for Cause
5.4.1.1, **14.2**, 15.1.7

Termination by the Owner for Convenience
14.4

Termination of the Architect
2.3.3
Termination of the Contractor Employment
14.2.2

TERMINATION OR SUSPENSION OF THE CONTRACT

14

Tests and Inspections
3.1.3, 3.3.3, 3.7.1, 4.2.2, 4.2.6, 4.2.9, 9.4.2, 9.8.3,
9.9.2, 9.10.1, 10.3.2, 12.2.1, **13.4**

TIME
8

Time, Delays and Extensions of
3.2.4, 3.7.4, 5.2.3, 7.2.1, 7.3.1, 7.4, **8.3**, 9.5.1, 9.7,
10.3.2, 10.4, 14.3.2, 15.1.6, 15.2.5

Time Limits
2.1.2, 2.2, 2.5, 3.2.2, 3.10, 3.11, 3.12.5, 3.15.1, 4.2,
5.2, 5.3, 5.4, 6.2.4, 7.3, 7.4, 8.2, 9.2, 9.3.1, 9.3.3, 9.4.1,
9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 12.2, 13.4, 14, 15.1.2,
15.1.3, 15.4

Time Limits on Claims
3.7.4, 10.2.8, 15.1.2, 15.1.3

Title to Work
9.3.2, 9.3.3

UNCOVERING AND CORRECTION OF WORK
12

Uncovering of Work
12.1

Unforeseen Conditions, Concealed or Unknown
3.7.4, 8.3.1, 10.3

Unit Prices
7.3.3.2, 9.1.2

Use of Documents
1.1.1, 1.5, 2.3.6, 3.12.6, 5.3

Use of Site
3.13, 6.1.1, 6.2.1

Values, Schedule of
9.2, 9.3.1

Waiver of Claims by the Architect
13.3.2

Waiver of Claims by the Contractor
9.10.5, 13.3.2, **15.1.7**

Waiver of Claims by the Owner
9.9.3, 9.10.3, 9.10.4, 12.2.2.1, 13.3.2, 14.2.4, **15.1.7**

Waiver of Consequential Damages
14.2.4, 15.1.7

Waiver of Liens
9.3, 9.10.2, 9.10.4

Waivers of Subrogation
6.1.1, **11.3**

Warranty
3.5, 4.2.9, 9.3.3, 9.8.4, 9.9.1, 9.10.2, 9.10.4, 12.2.2,
15.1.2

Weather Delays
8.3, 15.1.6.2

Work, Definition of
1.1.3

Written Consent
1.5.2, 3.4.2, 3.7.4, 3.12.8, 3.14.2, 4.1.2, 9.3.2, 9.10.3,
13.2, 13.3.2, 15.4.4.2

Written Interpretations
4.2.11, 4.2.12

Written Orders
1.1.1, 2.4, 3.9, 7, 8.2.2, 12.1, 12.2, 13.4.2, 14.3.1

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.

(Paragraphs deleted)

§ 1.1.8 Architect/Initial Decision Maker

The Architect/Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Architect/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. In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

1. The Agreement
2. Change Orders and Supplemental Instructions.
3. Addenda, with those of later date having precedence over those of earlier date.
4. The Supplementary Conditions.
5. The General Conditions of the Contract for Construction.
6. Drawings and Specifications.

In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or great quantity of Work shall be provided in accordance with the Architect's interpretations.

§ 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, material, equipment suppliers 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, material, equipment suppliers 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 with the exception of utilities to be field verified by the Contractor. The Contractor shall be responsible to have public and private utilities located within the areas being disturbed to implement the work on site.

§ 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 Contractor will be furnished free of charge, such copies of the Contract Documents as are reasonably necessary for execution of the Work. Following the initial issue of Drawings and Project Manuals, additional copies requested by the Contractor will be furnished at the cost of reproduction, postage and handling.

§ 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

§ 2.5.1 Prior to substantial completion, 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.

§ 2.5.2 After substantial completion, if the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails to correct such deficiencies within 3 days of receipt of written notice from the Architect or Owner, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor 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. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

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.

§ 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 unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

§ 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. After the Contract has been executed, the Owner and Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in Section 01 25 00 – Substitutions and Product Options.

§ 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. Important

communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

§ 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 as required by Section 01 32 00 Construction Scheduling. 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 as required by Section 01 32 00 Construction Scheduling, 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 maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of Architect reviewed Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be 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. Shop drawings submitted prior to issuance of the building permit are at the Contractors risk.

§ 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. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect without action.

§ 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 reviewed 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 review 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 review 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 review 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. The Contractor shall accept the site as it exists. The care, custody and control of the project site shall be vested in the Contractor, subject to the rights of the Owner.

§ 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.

§ 3.19 PROJECT MANAGER

§ 3.19.1 The Contractor shall employ a competent project manager who shall be present and run all construction progress meetings. The project manager shall be responsible for providing accurate and up-to-date construction and submittal schedules at each construction progress meeting.

§ 3.19.2 When requested by the Owner or Architect, the project manager shall:

- a. Assist in resolving scope conflicts between sub-contractors in a timely fashion to ensure project progress matches published construction schedule.
- b. Have sub-contractors attend construction progress meetings.
- c. Manage the resolution of issues that arise during the punchlist/closeout/warranty period when the job superintendent is no longer on site.

§ 3.19.3 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed project manager. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed project manager or (2) that the Architect required additional time to review. Failure of the Architect to reply within the 14 days period shall constitute notice of no reasonable objection.

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

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. The term "Architect" means the Architect or the Architect's authorized representative.

§ 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.

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

§ 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 end of the warranty period which ends one year from 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 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 take one of the following actions Reviewed; Rejected; Review Comments; Revise and Resubmit 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, the Architect will determine review timelines. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, coordinating the work, 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 duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

§ 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 20 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 Owner or Architect to provide notice within the 20-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, written where legally required for validity, 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. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

§ 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:

- .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 and overhead as provided in Section 7.5;
- .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 permit fees, and sales, use, or similar taxes, directly related to the work; and

§ 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.

§ 7.5 CHANGES IN CONTRACT SUM

§ 7.5.1 For any adjustments to the Contract Sum based on other than the unit prices method, the Contractor agrees to charge and accept payment for his overhead, bond, insurance, office project management and

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supervision estimating time/costs, field management and supervision including the field superintendent, foreman and all other management staff onsite, as-built modification, profit, use or replacement of tools, shop burden, equipment rental (other than specifically required additional hoisting equipment, required excavating equipment or similar equipment necessary solely as a result of the change), engineering costs, cost of safety measures (including those imposed by OSHA), parking charges, general jobsite clean-up, testing, permits (unless a new permit is required) or any other costs not associated with the change at the following percentages of the cost attributable to the change in the Work:

1. Ten percent (10%) for Work (labor, labor insurance and materials) by the Contractor not involving subcontractors;
2. Five percent (5%) for Work (labor, labor insurance and materials) by subcontractors;
3. When both additions and credits are involved in any one proposal request, the allowance for overhead, bond, insurance, office project management, estimating time, field supervision, as-built modification and profit shall be figured on the basis of the net increase, if any;
4. For additional Work ordered as described above which will be executed by Subcontractors of the Contractor, it is agreed Subcontractors will be permitted to charge ten percent (10%) for work not involving sub-subcontractors and five percent (5%) for Work by sub subcontractors. to the net subcontract amount the Contractor may add five percent (5%).

§ 7.5.2 A breakdown of material and an hourly breakdown of labor must be submitted with each request for additional compensation.

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 by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

§ 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 employed by the Owner; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, encountering Hazardous Materials, transportation delays not reasonably foreseeable, general labor disputes impacting the Project, but not specifically related to the Worksite, Terrorism, epidemics, adverse governmental actions, 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 arbitration or litigation as provide for herein; or (5) by other causes that 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. NOTICE OF DELAYS: If delays to the Work are encountered for any reason, the Contractor shall provide prompt written notice to the Architect of the cause of such delays after the Contractor first recognizes and can substantiate the delay. The Parties each agree to take reasonable steps to mitigate the effect of such delays.

§ 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 four (4) copies of the 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.

§ 9.2.2 Projects with multiple sites or multiple phased projects, provide separate schedule of values for each building, phase or site.

§ 9.2.3 The schedule of values shall include the following line items with values calculated as follows:

Operations and maintenance manuals	.125% of contract value
As-built drawings	.0625% of contract value
Training	.125% of contract value
Attic stock materials	.0625% of contract value
Mechanical/Electrical Coordination Drawings	.0625% of contract value

§ 9.2.4 The schedule of values shall be broken down with separate line items for labor and materials corresponding to each specification section.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit four (4) copies to the Architect an itemized Application for Payment (AIA Document G702 and G703) 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, 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 material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.1.3 Contractor shall request payment of ninety percent (90%) of the portion of the Contract Sum properly allocable to labor, materials and equipment incorporated in the Work and ninety percent (90%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site up to the first day of that month, less the aggregate of previous payment in each case.

§ 9.3.1.4 A sworn 'Contractor's Affidavit' shall be submitted with each payment request in sufficient form for the Owner to determine Contractor's right to payment and compliance with the Illinois Mechanic's Lien law. Each payment request shall include properly executed waivers of lien in conformity with information set forth on a properly completed Contractor's Affidavit. In the event that the Owner is satisfied with Contractor's payment procedures, the Owner may accept partial waivers of lien of subcontractors and suppliers who were included in the immediate proceeding payment. The Contractor shall submit waivers on a current basis, but the Owner may allow Subcontractors and suppliers to be not more than one payment late with their partial waivers.

§ 9.3.1.5 Provide that there are no outstanding liens or claims and that in the opinion of the Owner the previous work has been done properly and is on schedule for completion of construction and the unpaid balance in each case is sufficient to complete the unfinished work, upon fifty percent (50%) completion of the Work, the Owner shall have the option, in its sole discretion, to make subsequent payments in each case for ninety-five percent (95%) of the value of the completed Work, the retainage thus being reduced to five percent (5%).

§ 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 ten 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. **Per 50 ILCS 505/9, the Contractor must pay subcontractors within fifteen (15) days of receipt of payment from the local government entity for undisputed work. If the Contractor, without reasonable cause, fails to make payment to subcontractors within this period of time, in addition to the payment due the Contractor shall pay interest in the amount of 2% per month, calculated from the expiration of the fifteen (15) day period until fully paid.** 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' written 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. **If the Work is to be followed by construction by the Owner or by the separate contractors, Substantial Completion shall be defined as the readiness of the Work for the commencement of such construction.**

§ 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 which the Contractor shall complete all items on the list accompanying the Certificate **to sixty (60) calendar days. The Contractor will submit a punchlist completion schedule within ten (10) days of receipt of Certificate of Substantial Completion. Any cost incurred by the Architect or Architect's consultants (after 60 calendar days of substantial completion) to close out the project will be deducted from the Contractor's contract by change**

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order. 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. Warranties on punchlist items will commence on the date of final payment.

§ 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. **The payment shall be sufficient to increase the total payments to one hundred percent (100%) of the Contract Sum, less such amounts as the Owner and Architect shall determine for incomplete work and unsettled claims. The Owner has no obligation to make incremental retainage reductions after the initial determination for the incomplete work and unsettled claims.**

§ 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 as required under Section 11.3.1.5 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 terms and conditions of 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 and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial 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, and (5) 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. If such lien 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 such lien, including all costs and reasonable attorneys' fees.

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§ 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 written 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 from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage; **which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (2) by another person;**
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.
- .9 **Liability insurance shall include all major divisions of coverage and be on a comprehensive basis including:**
 - a. Premises Operations (including X, C, and U coverages as applicable).
 - b. **Independent Contractors' Protective.**
 - c. **Products and Completed Operations.**
 - d. **Personal Injury Liability with Employment Exclusion deleted, or Employment Practices Liability.**
 - e. **Contractual – including specified provision for Contractor's obligations under Paragraph 3.18.**
 - f. **Owned, non-owned and hired motor vehicles.**
 - g. **Broad Form Property Damage including Completion Operations.**
 - h. **Umbrella Excess Liability.**
- .10 **A General Liability or Umbrella Liability Policy on a claims-made basis will not be accepted.**

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

- a. **Workers' Compensation:**
 - 1) **Illinois Statutory**

Init.

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- 2) **Employer’s Liability:**
 - \$100,000 per accident
 - \$500,000 disease, policy limit
 - \$100,000 disease, each employee

- b. **Comprehensive or Commercial General Liability (including Premises-Operations; Independent Contractor’s Protective; Products and Completed Operations; Broad Form Property Damage):**
 - 1) **Bodily Injury:**
 - \$500,000 each occurrence
 - \$1,000,000 aggregate
 - 2) **Property Damage:**
 - \$500,000 each occurrence
 - \$1,000,000 aggregate
 - 3) **Products and Completed Operations to be maintained for 2 years after final payment:**
 - \$1,000,000 aggregate
 - 4) **Property Damage Liability Insurance shall provide X, C and U coverage.**
 - 5) **Broad Form Property Damage Coverage shall include Completed Operations.**

- c. **Contractual Liability**
 - 1) **Bodily Injury**
 - \$500,000 each occurrence
 - \$1,000,000 aggregate
 - 2) **Property Damage:**
 - \$500,000 each occurrence
 - \$1,000,000 aggregate

- d. **Personal Injury, with Employment Exclusion deleted:**
 - \$1,000,000 aggregate

- Employment Practices Liability**
 - \$1,000,000 aggregate

- e. **Business Auto Liability (including owned, non-owned and hired vehicles):**
 - 1) **Bodily Injury:**
 - \$1,000,000 each person
 - \$1,000,000 each occurrence
 - 2) **Property Damage:**
 - \$1,000,000 each occurrence

- f. **If the General Liability coverages are provided by a Commercial Liability policy, the:**
 - 1) **General Aggregate shall be not less than \$2,000,000 and it shall apply, in total, to this Project only.**
 - 2) **Fire Damage Limit shall be not less than \$100,000 on any one fire.**
 - 3) **Medical Expense Limit shall be not less than \$5,000 on any one person.**

- g. **Umbrella Excess Liability:**
 - \$3,000,000 over primary insurance.
 - \$10,000 retention for self-insured hazards, each occurrence.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days’ prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness. **If this insurance is written on the Comprehensive General Liability policy form, the Certificates shall be AIA Document G705, Certificate of Insurance. If this insurance is written on a Commercial General Liability policy form, ACORD form 25S will be acceptable. In addition to the required certificates, copies of policy endorsements indicating the Owner as Additional Insured shall be provided to the Owner.**

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect’s Consultants as additional insureds for claims caused in whole or in

part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations. The policy limits shall be not less than \$1,500,000.

§ 11.1.5 The insurance required by subparagraph 11.1.1 shall include an Indemnification clause as respect to General Liability and Worker's Compensation coverages.

§ 11.1.6 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.

§ 11.1.7 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.

§ 11.1.8 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 PROPERTY INSURANCE

§ 11.2.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance (Special Form) in the amount of the initial Contract Sum as well as subsequent modifications thereto for the entire work at the site on a replacement cost basis. The Contractor shall be responsible for payment of all deductibles resulting from losses under the coverage provided herein. Such insurance will cover damage to work completed, materials installed and awaiting installation, and all materials in transit for the Project. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until all phases are substantially complete or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph 11.4 to be covered, whichever is earlier. This insurance shall include interests of the Owner, Architects, Engineers, Architect's consultants, Contractor, Subcontractors and Sub-subcontractors in the Work. The form of policy for this coverage shall be completed Value. If the Owner is damaged by the failure of the Contractor to maintain such insurance, then the contractor shall bear all reasonable costs properly attributable thereto.

§ 11.2.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

§ 11.2.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

§ 11.2.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.2.2 BOILER AND MACHINERY INSURANCE

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds. The testing exclusion shall be removed from this policy.

§ 11.2.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.2.5 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, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.2.6 Before an exposure to loss may occur, the Contractor shall file with the Owner through the Architect, two certified copies of the policy or policies providing this Property Insurance Coverage, each containing those endorsements specifically related to the Project.

§ 11.2.7 Owner's Insurance

§ 11.2.7.1 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.

§ 11.3 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, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, 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 covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Contractor as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

(Paragraph deleted)

§ 11.3.2 A loss insured under this property insurance shall be adjusted by the Contractor as fiduciary and made payable to the Contractor as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.3 If required in writing by a party in interest, the Contractor as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Contractor's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Contractor shall deposit in a separate account proceeds so received, which the Contractor shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and

Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.4 The Contractor as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Contractor's exercise of this power; if such objection is made, arbitrators shall be chosen as provided in Paragraph 15.4. The Contractor as fiduciary shall in that case make settlement with insurers or, in accordance with the directions of the arbitrators.

§ 11.3.5 In the event of partial occupancy or use in accordance with Paragraph 9.9, the Contractor shall notify the insurance company and obtain a "Use and Occupancy Waiver" such that the policy will not be invalidated by occupancy.

§ 11.3.6 All insurance policies shall contain a provision stating that coverages afforded under any of the aforesaid insurance policies shall not be cancelled or materially changed without at least thirty (30) days prior written notice to the Owner. On all Certificate forms, the words "endeavor to" and the remaining words beginning with "but failure to" shall be stricken from the cancellation notice provision.

§ 11.3.7 All insurance policies shall be underwritten with responsible insurance carriers with Best's Rating of not less than A and X and otherwise satisfactory to the Owner and licensed to provide insurance in the state in which the project is located. Non-admitted carriers may be considered on an individual basis.

§ 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 PERFORMANCE BOND AND PAYMENT BOND

§ 11.5.1 The Contractor shall furnish bond or bonds as described below, covering the faithful performance of the Contract and the payments of all obligations arising thereunder. The Contract will not be signed until the Owner has received the proper bond specified under this Article, issued by a bonding company licensed to do business in the State where the construction will take place, and on the current list of Company's Holding Certificates of Authority as acceptable Sureties on Federal Bonds and as acceptable reinsuring companies as published in Circular 570 (Amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act.

§ 11.5.1.1 Furnish both AIA A312 Performance Bond and AIA A312 Payment Bond in the amount of 100% of the Contract Price.

§ 11.5.1.2 The Performance Bond and Payment Bond shall be submitted in the exact form specified in Section 11.4.1.1, above, and with the certificates specified in Section 11.4.1.3, below, and no other modifications or addendum whatsoever shall be allowed.

§ 11.5.1.3 Duly executed, notarized and updated Acknowledgements of both the Principal and Surety and the Surety's Power of Attorney must be attached to each of the two required bonds.

§ 11.5.1.4 Bond amounts shall not exceed the single bond limit for the Contractor's bonding company as set forth in the Federal Register current as of the bid date.

§ 11.5.2 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.

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, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 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 written notice from the Owner or Architect to do so, unless the Owner or Architect has previously given the Contractor a written acceptance of such condition. The Owner or Architect shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner or Architect 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 incomplete or defective Work noted on the Certificate of Substantial Completion shall commence at final payment.

§ 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 except that, 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.

§ 13.2.3 Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 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 (1) tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections, or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 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.

§ 13.6 TIME LIMITS ON CLAIMS

Accrual dates for Statutes of Limitations are controlled by Illinois Law.

§ 13.8.1 Human Rights Act: To the extent required by law, Contractor shall comply with the terms and procedures of the Illinois Human Rights Act. 775 ILCS 10/0.01 et seq. To the extent required by law Contractor agrees as follows:

§ 13.8.1.1 The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

§ 13.8.1.2 The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

§ 13.9 DRUG FREE WORKPLACE

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

§ 13.10 SEXUAL HARRASSMENT POLICY

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

§ 13.11 PREVAILING WAGE ACT

§ 13.11.1 The Contractor shall pay, if applicable, no less than the prevailing rate of wages as established, to all laborers, workers and mechanics in the performance of the Work under this Contract in accordance with "An Act regulating wages of laborers, mechanics and other workmen employed under contracts for Public Works." 820 ILCS 130/1 et seq. Section 00 73 43 Prevailing Wages contain the scale of prevailing wages to be paid shall be posted by the Contractor in a prominent and easily accessible place a site of work.

§ 13.11.2 Any increases in costs to the Contractor due to changes in the prevailing rate of wages or labor law during the term of any contract shall be at the expense of the Contractor and not all the expense of the Owner.

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 or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, 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 above reasons exist, and upon certification by the Architect/Initial Decision Maker 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 Architect/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 Contractor shall be entitled to receive payment for Work executed, and for proven out-of-pocket loss with respect to materials, equipment, tools, and construction equipment and machinery incurred by reason of such termination, but excluding any fee or profit on any unperformed Work.

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, 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.

§ 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 Architect/Initial Decision Maker with a copy. 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. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Architect/Initial Decision Maker.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Architect/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 Architect/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 arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Architect/Initial Decision Maker for initial decision. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to arbitration 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 Architect/Initial Decision Maker and all affected parties agree, the Architect/Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Architect/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

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compromise, or (5) advise the parties that the Architect/Initial Decision Maker is unable to resolve the Claim if the Architect/Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Architect/Initial Decision Maker concludes that, in the Architect/Initial Decision Maker's sole discretion, it would be inappropriate for the Architect/Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Architect/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 Architect/Initial Decision Maker in rendering a decision. The Architect/Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Architect/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 Architect/Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Architect/Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Architect/Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Architect/Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Architect/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 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 arbitration.

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

§ 15.2.6.1 When a written decision of the Architect/Initial Decision Maker states that (1) the decision is final but subject to arbitration, **as provided for herein**, and (2) a demand for arbitration of a Claim covered by such decision must be made within 30 days after the date on which the party making the demand receives the final written decision, then failure to demand arbitration within said 30 days' period shall result in the Architect's decision becoming final and binding upon the Owner and Contractor. If the Architect/Initial Decision Maker renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence, but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.

§ 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.

(Paragraphs deleted)

§ 15.4 Arbitration

NOTE: All references to "Arbitration" in Section 15.4 shall be considered permissive and not mandatory. The Owner shall, in its sole discretion, have the right and option to enforce any claim it may have against the Contractor, or against any of the Subcontractors, Sub-subcontractors, Suppliers or Vendors of Contractor, through litigation. The Owner shall, in its sole discretion, also have the right and option to refuse to arbitrate any claim brought against Owner by the Contractor, either on Contractor's own behalf, or on behalf of any of the Subcontractors, Sub-subcontractors, Suppliers or Vendors of Contractor, and demand that such claim be pursued through litigation. In the event the Owner exercises its right and option to refuse to arbitrate a claim brought against the Owner, written notice of such refusal shall be given by Owner to the party making the claim and to any tribunal administering the claim at any time up to and including the date when Owner is required by any applicable statute, rule or order to respond to such claim.

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim shall be subject to arbitration unless the Owner decides to pursue the claim through litigation 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 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 Limitation on Consolidation or Joinder. No arbitration arising out of or relating to the Contract shall include, by consolidation or joinder or in any other manner, the Architect, the Architect's employees or consultants, except by written consent containing specific reference to the Agreement and signed by the Architect, Owner, Contractor and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the Owner, Contractor, a separate contractor as described in Article 6 and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the Owner, Contractor or a separate contractor as described in Article 6 shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described therein or with a person or entity not named or described therein. 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.

(Paragraph deleted)

SECTION 3: SUPPLEMENTARY CONDITIONS

The "General Conditions of the Contract, AIA Document A107", (the "General Conditions") OR other Agreement, as modified by Owner, are hereby amended to include the following:

3.01 SCOPE OF WORK

- A. The Work is to be done under this Contract, as shown on the Contract plans and described herein shall include the furnishings and complete installation of all materials and any other necessary Work required for proper completion, operation and use of the facilities. All the equipment, materials and labor that may be necessary to complete the Work and place it in satisfactory operation, implied or intended in the written Specifications and Drawings for the **Bonnie Brook Maintenance Building Roof Replacement**, shall be furnished and/or installed without extra cost to the Owner.

3.02 CONTRACT DOCUMENTS

- A. The Invitation to Bid, Instructions to Bidders, General Conditions, Supplementary and/or Special Conditions, if any, Drawings, Specifications, Contractor Bid Form, Addenda, if any, Contractors Compliance and Certifications Attachment, and Substance Abuse Certification comprise the Bid Documents. The Bid Documents, together with the Standard /Form of Agreement Between Owner and Contractor AIA Document A107 OR other Agreement, as modified by the Park District and included in these Bid Documents, and the Performance Bond and Labor Material Payment Bond and proof of insurance comprise the Contract Documents.

3.03 APPLICABLE LAWS

- A. The Contractor shall at all times observe and comply with all Federal, State, and Local laws, regulations and ordinances which in any manner affect the conduct of the Work. Any complaint, claim or action brought against the Contractor for failing to observe or comply with any law, ordinance, or regulation shall be the sole responsibility of the Contractor and shall in no way extend to or expose the Owner to liability and the Contractor shall indemnify and hold harmless the Owner from any and all such complaints, claims, or actions.

All workmanship and materials shall conform and comply with the requirements of the building ordinances and rules and regulations of all departments and bureaus of the county, city and state having lawful jurisdiction. All of said ordinances and rules and regulations are hereby made a part of these Specifications.

PREVAILING WAGE ACT: Contractor shall comply with the Illinois Prevailing Wage Act (820 ILCS 130/.01 et seq.) (the "Act") as required by the Illinois Department of Labor. The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages (hourly cash plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at: <https://www2.illinois.gov/idol/laws-rules/conmed/pages/prevailing-wage-rates.aspx>. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

CERTIFICATIONS: The Bidder shall complete the Contractor Compliance and Certifications Attachment and the Substance Abuse Prevention Program Certification. Failure to do so may result in disqualification of the Bidder.

CRIMINAL BACKGROUND INVESTIGATIONS: The Contractor shall a conduct criminal background investigation for each laborer, mechanic, and worker employed by the Contractor or any of its Subcontractors on the project in

compliance with federal and state laws and regulations. The Contractor shall not knowingly employ any person on the Project, or allow any person to enter onto Owner's property, who has been convicted for committing or attempting to commit first degree murder, a Class X felony, or any one or more of the following offenses: (i) those defined in Sections 11-1.20, 11-1.30, 11-1.40, 11-1.50, 11-1.60, 11-6, 11-9, 11-14, 11-14.3, 11-14.4, 11-15, 11-15.1, 11-16, 11-17, 11-18, 11-19, 11-19.1, 11-19.2, 11-20, 11-20.1, 11-20.1B, 11-20.3, 11-21, 11-30, 12-7.3, 12-7.4, 12-7.5, 12-13, 12-14, 12-14.1, 12-15, and 12-16, of the Criminal Code; (ii) those defined in the Cannabis Control Act, except those defined in Sections 4(a), 4(b), and 5(a) of that Act; (iii) those defined in the Illinois Controlled Substances Act; (iv) those defined in the Methamphetamine Control and Community Protection Act; and (v) any offense committed or attempted in any other state or against the laws of the United States, which, if committed or attempted in this State, would have been punishable as one or more of the foregoing offenses. Further, no Contractor shall knowingly employ a person who has been found to be the perpetrator of sexual or physical abuse of any minor under 18 years of age pursuant to proceedings under Article II of the Juvenile Court Act of 1987

3.04 SUBCONTRACTING

- A. The Contractor may utilize the services of qualified Subcontractors on those parts of the work which, under normal contracting practices, are performed by Subcontractors specializing in the particular class of work. The Contractor is encouraged to utilize local, women, and minority-owned Subcontractors, when reasonable.
- B. The Contractor shall not award any work to any Subcontractor without prior written approval by the Owner, which approval will not be considered until the Contractor submits to the Owner a written statement concerning the proposed award to the Subcontractor.
- C. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
- D. Nothing contained in this Contract shall create any contractual relations between any Subcontractor and the Owner.

3.05 APPROVAL OF MATERIALS AND SOURCES OF SUPPLY

- A. The Contractor shall furnish to the Owner for approval, immediately after the signing of the Contract, a complete statement of the origin, composition, manufacturer and proposed sources of supply of all materials or equipment required for use in this Work, whether supplied by himself or by any approved Subcontractor. The Contractor shall submit detailed information, literature, plans and such other data required to permit an analysis of the proposed equipment and materials.

3.06 INSPECTION AND TESTING

- A. All materials and workmanship if not otherwise stipulated, shall be subject to inspection, examination and test by authorized representatives of the Owner at all times, before, during or after the preparation, during the progress of the Work, or after the Work is completed.

3.07 TITLE OF MATERIALS

- A. The Contractor or Subcontractor shall not furnish any materials for the work that are subject to a chattel mortgage or subject to conditions or interest retained by the seller. The materials or equipment must be free of all encumbrances.

3.08 PATENTS, ROYALTIES AND LICENSES

- A. The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses for or on account of any patent or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.

3.09 PERMITS, LICENSES AND CERTIFICATES

- A. **The Contractor shall procure the building permit for this Project from the City of Waukegan.** Owner shall either pay the City of Waukegan directly or reimburse Contractor for all required building permits. Reimbursement shall be for exact cost paid by Contractor. No markup shall be paid for permits. The Contractor shall supply all certificates required to show that the Work has been performed in accordance with the building, plumbing, electrical or other codes, rules and regulations of local or other authorities, the Board of Fire Underwriters or such other like bodies, as the Specifications may require directly or indirectly. **The Contractor shall file a contractor's registration application with associated fees, licenses, permit bonds, and insurance certificate with the City of Waukegan Building and Code Enforcement Department (1-847-625-6868).** Contractor registration fees are the responsibility of the Contractor and Subcontractors.

3.10 CONTRACTOR RESPONSIBLE UNTIL WORK COMPLETED

- A. The Contractor shall have charge of and be responsible for the entire Work until completed and accepted by the Owner. He shall make no assignment of this Contract without the written consent of the Owner. He shall give his personal supervision to the faithful prosecution of the Work; he shall keep it under his own control; and he shall have a competent representative or foreman on the Work, who shall have full authority to bring about the orderly and efficient prosecution of the same in accordance with the Contract and to supply materials, tools, equipment, and labor without delay.

3.11 WEATHER CONDITIONS

- A. If a temporary suspension of Work should occur during inclement weather, the Contractor shall protect carefully all Work and materials under this Contract against damage or injury from the weather. If, in the opinion of the Owner, damage results to either the Work or materials by reason of failure on the part of the Contractor to protect his Work, such materials or Work will be removed and replaced by and at the expense of the Contractor.

3.12 NO CHARGE FOR DELAY

- A. Unless otherwise provided in the Contract Documents, the Contractor shall make no charge or claim whatsoever for any hindrance or delay in the progress of the Work.

3.13 COMPLETION DATE AND QUALIFICATION

- A. The Work to be performed under this Contract must be **Substantially Completed by October 18, 2024 with Final Completion by November 15, 2024.**

1. The Date of Substantial Completion shall mean when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the entire Work for use for which it is intended.
- B. It is hereby understood and mutually agreed by and between the Contractor and the Owner that the date of beginning and the time for completion as specified in the Contract, is a reasonable time for the completion of the Work, taking into consideration the average weather and industrial conditions prevailing in this locality. The Contractor agrees that time is of the essence of this Contract. If the Contractor shall neglect, fail, or refuse to complete the Work within the time specified in the Contract or any proper extension thereof granted by the Owner, it in no way relieves the Contractor of his responsibility to complete the Work at no additional cost to the Owner. Any extension of the completion date must be agreed upon in writing by the Owner and Contractor. Contractor shall not be responsible for failure to meet the completion date when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner. The Contractor shall not be charged with any excess cost when the delay in completion of the Work is due to:

Any order duly issued by the government (city, county, state or federal);

Any unforeseeable cause beyond the control and without fault or negligence of the Contractor including, but not restricted to, acts of God, severe weather, strikes, acts of the Owner, or acts of another Contractor in the performance of a contract with the Owner (except as provided in paragraph VIII above).

Any delays of Subcontractors or suppliers occasioned by any of the causes specified above.

As otherwise provided for in the General Conditions

3.14 INSURANCE AND INDEMNIFICATION REQUIREMENTS

A. Insurance

1. Commercial General and Umbrella Liability Insurance

Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or at the Park District's sole option on a more current ISO form or a substitute form providing at least equivalent coverage, and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

The Park District shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 or a substitute providing at least equivalent coverage, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance afforded to the Park District. If the additional insured have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The amount of the Contractor's liability under this insurance policy shall not be reduced by the existence of such other insurance.

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, or underground property damage.

2. Business Auto and Umbrella Liability Insurance

Contractor shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit of not less than \$2,000,000 each accident. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos.

Business auto insurance shall be written on Insurance Services Office (ISO) form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing at least equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage at least equivalent to that provided in the 1990 and later editions of CA 00 01.

3. Continuing Completed Operations Liability Insurance (Only applies if project carries a Guarantee)

Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each occurrence for at least three years following substantial completion of the work.

Continuing CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or substitute form providing equivalent coverage, and shall, at minimum, cover liability arising from products completed operations and liability assumed under an insured contract.

Continuing CGL insurance shall have a products-completed operations aggregate of at least two times its each occurrence limit.

Continuing commercial umbrellas coverage, if any, shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

4. Workers Compensation Insurance

Contractor shall maintain workers compensation as required by statute and employers liability insurance. The commercial umbrella and/or employers liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

If the Park District has not been included as an insured under the CGL using ISO additional insured endorsement CG 20 10 or a substitute endorsement acceptable to the Park District under the Commercial General and Umbrella Liability Insurance required in this Agreement, the Contractor waives all rights against the Park District and its officers, officials, employees, volunteers and agents for recovery of damages arising out of or incident to the Contractor's work.

5. General Insurance Provisions

A. Evidence of Insurance

Prior to beginning work, Contractor shall furnish the Park District with a certificate(s) of insurance and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, and

such other evidence of insurance as shall be requested by the Park District, showing compliance with the insurance requirements set forth above.

All certificates shall provide for 30 days' written notice to the Park District prior to the cancellation or material change of any insurance referred to therein. Written notice to the Park District shall be by certified mail, return receipt requested. Failure of the Park District to demand such certificate, endorsement or other evidence of full compliance with these insurance requirements or failure of the Park District to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

The Park District shall have the right, but not the obligation, of prohibiting Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the Park District.

Failure to maintain the required insurance may result in termination of this Agreement at the Park District's option. With respect to insurance maintained after final payment in compliance with a requirement above, an additional certificate(s) evidencing such coverage shall be promptly provided to the Park District whenever requested. Contractor shall provide certified copies of all insurance policies required above within 10 days of the Park District's written request for said copies.

B. Acceptability of Insurers

For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Park District has the right to reject insurance written by an insurer it deems unacceptable.

C. Cross-Liability Coverage

If Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

D. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to the Park District. At the option of the Park District, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Park District, its officers, officials, employees, volunteers and agents or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.

E. Subcontractors

Contractor shall cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified above. When requested by the Park District, Contractor shall furnish copies of certificates of insurance evidencing coverage for each subcontractor.

B. Indemnification

1. To the fullest extent permitted by law, the Contractor shall waive any right of contribution and shall defend, indemnify and hold harmless the Owner, the Architect and their agents, employees and consultants from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees, costs and economic damages, arising out of, resulting from, or in any way connected with the performance of the Work, provided that any such claim, damage, loss or expense is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The duty to defend herein is separate and distinct from the duty to indemnify and hold harmless, and shall be separately enforceable as such. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to the Owner described in this Agreement.

2. The indemnification obligation under this Paragraph shall not be limited in any way by any limitations on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workers' or workmen's' compensation acts, disability benefit acts or other employee benefit acts, and the Contractor and all subcontractors hereby waive any limitations of liability defense based upon such acts, to the fullest extent permitted by law.

3. "Claims, damages, losses and expenses" as these words are used in this Agreement shall be construed to include, but not limited to (1) injury or damage consequent upon the failure of or use or misuse by Contractor, its Subcontractors, agents, servants or employees, of any hoist, rigging, blocking, scaffolding, or any and all other kinds of items of equipment, whether or not the same be owned, furnished or loaned by Owner; (2) all attorneys' fees, expenses and costs incurred in bringing an action to enforce the provisions of this indemnity or any other indemnity contained in the General Conditions, as modified by the Supplementary General Conditions; (3) time expended by the party being indemnified and their employees, at their usual rates plus costs of travel, long distance telephone and reproduction of documents; and (4) error or omission or defect in any submission made to Architect / Engineer for its approval or review.

4. The obligations of the Contractor to indemnify and hold harmless Owner, Architect, their agents, consultants and employees under this Agreement shall not extend to the liability of the Owner and the Architect, their agents, consultants or employees arising out of their own negligence.

3.15 CONTRACTOR PAYMENTS

- A. Payment will be made in full upon completion of the Project with Owner's final acceptance. **No payment shall be authorized unless all applicable Waivers of Lien and Contractor's Affidavits are submitted in accordance with the Contract Documents.** The time periods governing Owner's approval, disapproval, and payment of Contractor's applications for payment shall comply with the *Local Government Prompt Payment Act, 50 ILCS 505/1 et seq.*

The acceptance by the Contractor of final payment shall constitute a release and waiver of any and all rights and privileges under the terms of the Contract, and shall relieve the Park District from any and all claims or liabilities for anything done or furnished relative to the Work or for any act or neglect on the part of the Park District relating to or connected with the Contract. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the Contract or the performance and payment bonds.

Failure to adhere to the approved progress schedule as specified in the Contract Documents, cooperate with other Contractors, and/or generally hinder the construction progress as determined by the Owner shall be grounds for withholding payments. Failure to supply waivers of lien, and any other supporting documentation as required by Owner, with each request will be considered grounds for withholding partial

payments, and failure to supply final waivers for the entire job on completion shall be grounds for withholding final payment.

The Owner may withhold from the Contractor, in addition to retained percentage, such an amount or amounts as may be necessary to pay just claims for labor and services rendered and materials furnished in or about the Work. The Owner shall have the right, acting as agent for the Contractor, to apply such retained amounts to the payment of such just claims.

3.16 WORK PERFORMANCE

- A. The Contractor shall coordinate his Work with all adjacent Work and shall coordinate with all other trades so as to facilitate the general progress of the Work. He shall afford all other trades every reasonable opportunity for the installation of their Work and for the storage of their material.
- B. Whenever, in the opinion of the Owner, the Contractor prosecutes or fails to prosecute his Work in such a manner as to hinder or delay the completion of the Work, the Owner may, after five (5) days' written notice to the Contractor order the Contractor to stop the Work, and carry out such Work as is necessary to be done by another Contractor or Contractors not necessarily holding a Contract for such Work on the Project, and in such event may charge the Contractor for such Work as may be performed. Nothing in this paragraph shall be deemed to be a waiver of any other remedies which may be available to the Owner in the event of a default surrender.

3.17 SAFETY OF PERSONS AND PROPERTY

- A. The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:
 - 1. All employees on the Work and all other persons who may be affected thereby;
 - 2. All the Work and all 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 Sub-subcontractors; and
 - 3. 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.
- B. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.
- C. The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.
- D. When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

3.18 UNDERGROUND UTILITIES

- A. The Contractor is responsible for contacting utility companies and the City of Waukegan or other companies which may have underground structures to locate and determine the exact location of such underground structures. The Contractor will locate and stake all underground structures in the field to include all cable and conduit, gas lines, water lines, and drainage lines. All underground utilities so marked which are disturbed or damaged by the Contractor's operation shall be repaired by competent and qualified specialists at the Contractor's expense. Such repairs shall be made under the direction of the Owner. The Contractor is responsible for contacting utility companies and the City of Waukegan or other companies which may have underground structures to locate and determine the exact location of such underground structures.

3.19 PAYMENTS TO MATERIALMAN, ETC.

- A. It is hereby expressly understood and agreed that the said Contractor shall furnish satisfactory evidence, when called for, that all persons who have done work or furnished materials in connection with the performance of the Contract, have been fully paid; otherwise the Owner shall have right to pay all such claims in full, out of any money that may be due to the Contractor under this agreement.

3.20 MODIFICATIONS OF CONTRACT DOCUMENTS AND CONTRACT WORK

- A. The Contract Documents may be modified and changed from time to time by written order of the Owner, in a manner not materially affecting the substance thereof, if such changes are necessary to carry out and complete more fully and perfectly the work to be done and performed. The Contractor shall acknowledge, in writing, receipt of every such order. If the changes and modifications increase the expense of the work, the increase expenses shall be paid for by the Owner. If such changes and modifications decrease the expense of the work, the amount of said diminution shall be credited to the Owner. The additional payment or amount credited shall be as a basis previously agreed upon, in writing, by the Owner and the Contractor. No consequential loss or profit on work not executed shall be paid to the Contractor.
- B. The amount of compensations to be paid to the Contractor for any changes or alterations, as so ordered, shall be determined:
 - 1. By a lump sum mutually agreed upon by the Owner and the Contractor; or,
 - 2. If the parties cannot agree upon a lump sum, then by the actual net cost in money to the Contractor of the materials and of the wages applied labor (including premiums for Workmen's Compensation Insurance) required for such changes and alterations, plus such rental for plant and equipment (other than small tools) required and approved for such changes and alterations, plus 10% or 15% as compensation for all other items of profit and costs or expenses, including administration, overhead, superintendence, insurance (other than Workman's Compensation), materials used in temporary structures, allowances made by the Contractor to the Subcontractors, additional premiums upon the performance bond of the Contractor, and the use of small tools. The provisions hereof shall not affect the power of the Contractor to act in case of emergency, as herein provided.

Where proposed changes involve a modification to (i) the Contract Sum; (ii) the Contract Time, or (iii) material change in the Work (i.e., other than minor field changes) a written change order shall be prepared by Contractor. In accordance with the *Criminal Code*, 720 ILCS 5/33 E-9, if a change order or series of change orders authorizes or necessitates an increase or decrease in **either** the cost of the contract by \$10,000 or more, **or** the time of completion of the Work by 30 days or more, such changes

may be made only upon the written authorization of **the Executive Director (Secretary of the Board) of the Waukegan Park District**, after approval from the Board of Park Commissioners, including a written determination that:

the circumstances necessitating the change were not reasonably foreseeable at the time the Contract was signed; or

the change is germane to the original Contract as signed; or

the change order is in the best interest of the Owner and is authorized by law.

3.21 CLAIMS OF EXTRA COMPENSATION

- A. All claims for extra compensation over and above the amount agreed upon in the contract on account of any alterations or changes, or for any extra work, shall be filed, in writing, with the Owner by the Contractor, having attached thereto a copy of the original order for such alterations or changes or extra work, within thirty (30) days after the completion of said alterations or changes or extra work. The Contractor, before starting work on said alterations or changes or extra work, shall notify the Owner, in writing, of his intentions to file such claims in order that a proper record of such work may be kept by the Owner. Should the Contractor fail to notify the Owner in advance, as required, or to submit his claim within thirty (30) days, as required, it will be taken as conclusive that no claim exists.

3.22 USE OF PREMISES AND REMOVAL OF DEBRIS

- A. The Contractor expressly undertakes at his own expense:
1. To take every precaution against injuries to person or damages to property;
 2. To store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work of any other Contractors;
 3. To place upon the Work, or any part thereof, only such loads as are consistent with the safety of that portion of the Work;
 4. To frequently clean up all refuse, rubbish, scrap materials, and debris caused by his operations, to the end, that at all times the site of the Work shall present a neat, orderly, and workmanlike appearance;
 5. Before final payment, to remove all surplus material, false-work, temporary structures, including foundations thereof, plant of any description, and debris of every nature resulting from his operations, and to put the site in a neat, orderly condition.

3.23 GUARANTEE

- A. All work performed shall be guaranteed by the General Contractor to be free from defects in materials and workmanship for a period of one year from the date of final acceptance. The Work shall be left in perfect order at completion and acceptance. Neither the final payment nor the termination of the guarantee period, nor any provision in the Contract Documents shall relieve the Contractor of the responsibility for negligence, faulty materials, or workmanship within the extent and period provided by law, and upon written notice he/she shall remedy any defects due thereto, and shall pay all expenses for any damage to other work resulting there from.

The successful Bidder(s) must present the Park District with two (2) copies of any manufacturer's warranty or guarantee information. If needed, the Bidder agrees to sign over warranties and guarantees to the Park District.

If the Drawings and/or Specifications provide for methods of construction, installation, materials, etc., which the Contractor cannot guarantee for the indicated period, it shall be the responsibility of the Contractor to so inform the Owner in writing before submitting his/her bid. Otherwise, the Contractor shall be held responsible to provide the method of construction, installation, materials, etc., which will be guaranteed for the indicated period of time.

SECTION 00 73 43
STATE PREVAILING WAGES

STATE OF ILLINOIS DEPARTMENT OF LABOR REQUIREMENTS

This contract constitutes the construction of a "public work", within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. The Contractor and each subcontractor rendering services under this contract shall comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties, and shall include in Bids the cost for compliance with the Act.

- a The Illinois Department of Labor Prevailing Wages for location of the project are available at the State of Illinois Data Portal website:
<https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx>
- b The Contractor and each subcontractor shall inform themselves of current rates and of changes which may be made from time to time. No additional costs shall be incurred by the Owner as a result of changes in the prevailing wage.
- c The Contractor and each subcontractor shall comply with all record-keeping requirements of the Illinois Prevailing Wage Act, including, but not limited to, (1) make and keep, for a period of not less than three years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each pay period, the number of hours worked each day, and the starting and ending times of work each day; and (2) shall submit monthly a certified payroll in conformance with law, and in the form and manner specified by the Contract Documents, or otherwise as acceptable to the Owner.
- d The Contractor and each subcontractor shall comply with the Employment of Illinois Workers on Public Works Act (30 ILCS 570). All record keeping requirements are the obligation of the Contractor and Subcontractors.
- e The Contractor and each subcontractor shall indemnify and hold harmless both the Owner, Architect, Construction Manager, and their respective officers, employees and agents, from any and all costs incurred, directly or indirectly, by any of them (the Indemnitees) in responding to or complying with demands made by the Illinois Department of Labor, or an aggrieved employee of the Contractor or subcontractor, or any third party, as a result of any claimed violation of or inquiry regarding these Acts. Any such cost incurred by an Indemnatee may be deducted from the Contract Sum. It is the intention that the Indemnitees shall suffer no time loss or expense in complying with any inquiry made with regard to these Acts.

END OF SECTION 00 73 43

SECTION 01 10 00
SUMMARY OF THE WORK

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: 2024 Bonnie Brook Maintenance Building Roof Replacement
- B. Owner's Name: Waukegan Park District
- C. Architect's Name: Wold Architects and Engineers.
- D. Additional Project contact information is specified in Section 00 01 03 - Project Directory.
- E. The Project consists of the construction of roof replacement and associated plumbing and electrical work..
 - 1. Briefly and without force and effect upon the Contract Documents, the Work of this single prime Contract can be summarized as follows:
 - 2. Work under this Contract includes:
 - a. Building Structure:
 - 1) Plywood decking.
 - b. Building Enclosure:
 - 1) Pre-painted metal siding and fascia to match existing.
 - 2) Roofing systems of EPDM.
 - 3) Alternate No. 1 - Sectional metal overhead doors
 - c. Interior Finishes:
 - 1) Concrete block partitions
 - 2) Ceiling finishes paint.
 - d. Mechanical Systems:
 - 1) Storm drain and piping demolition.
 - e. Electrical Systems:
 - 1) Conduit and wiring.
 - 2) Interior lighting.
- F. Keep Architect fully informed about progress of the work, performance of the work and potential problems.

1.02 WORK BY OWNER THROUGH OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.
- B. Preceding Work: Owner has awarded or will award separate contract(s) for the following construction operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins.
- C. Concurrent Work: Owner will award separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract.
- D. Future Work: Owner will award separate contract(s) for the following additional work to be performed at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.
 - 1. Furnishings and movable equipment.

1.03 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
 - 1. Locate and conduct construction activities in ways that will limit disturbance to site.
 - 2. Contractor is to visit site and be familiar with existing conditions. Contractor will be required to accept existing conditions on site prior to mobilizing.
 - 3. Conform to City's noise control regulations, including limited hours of construction operations.

4. Do not allow construction waste and debris to accumulate on site; remove debris as it accumulates and, unless specified otherwise, dispose of legally off-site.
 5. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
- B. Arrange use of site and premises to allow:
1. Owner occupancy.
 2. Work by Others.
 3. Work by Owner.
 4. Use of site and premises by the public.
- C. Provide access to and from site as required by law and by Owner:
1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Time Restrictions:
1. The Owner's normal business hours are: 7 am to 4 pm.
 2. Should the Contractor begin work within the existing building prior to the scheduled start date, continuous use of facilities is required by the Owner.
 - a. Work in those areas shall occur during evenings and weekends and shall be cleaned and available for use the following business day.
 3. Should the Contractor choose to perform work after normal business hours when the building is occupied, the Contractor shall:
 - a. Maintain access, building utilities, and services to allow full and free use of the facility during this time. All temporary conditions, re-routing of services, utilities and/or power are the Contractor's responsibility.
 - b. Coordinate access and storage of materials and equipment with the Owner's designated building representative. To the fullest extent possible provide for normal building operation, and the safety of the building's occupants. Work in areas that occur during evenings and weekends shall be cleaned and available for use the following business day.
 - c. Coordinate schedule with the Owner's designated building representative.
 4. Should the Contractor have additional work to complete after the substantial completion date including punchlist work within the existing or newly completed building, continuous use of facilities is required by the Owner.
 5. Work in those areas shall occur during evenings and weekends and shall be cleaned and available for use the following school or business day.
- E. Utility Outages and Shutdown:
1. Provide the Owner with at least 7 days notice of Outages and Shutdowns.
 2. Limit disruption of utility services to hours the building is unoccupied.
 3. 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 Owner and authorities having jurisdiction.
 4. Prevent accidental disruption of utility services to other facilities.

1.05 LAYING OUT WORK

- A. Locate all general reference points. Where dimensions or observed scope of work differ substantially from Drawings, notify Architect for decision.
- B. Lay out Work from the reference points furnished and be responsible for all lines, elevations, and measurements inside workspace. Exercise proper precaution to verify figures shown on Drawings before laying out work and will be held responsible for any error resulting from his failure to exercise such precaution.
- C. Call for public utility locates before starting any excavations.

- D. Hire the services of a locator company to locate all privately owned utilities that may be disturbed by construction operations.
- E. Coordinate utility connections with municipality/utility company in which project is being constructed.

1.06 WORK SEQUENCE

- A. Start submittal process immediately upon contract award by the Owner. Actual work on site shall not commence until September 3, 2024.
- B. Substantial Completion of the work shall be October 18, 2024; Final completion of the project shall be November 15, 2024.

1.07 SPECIFICATION SECTIONS APPLICABLE TO EVERY CONTRACT

- A. Sections in Division 1 govern the execution of the Work of all items in the Technical Specification Sections.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 10 00

**SECTION 01 21 00
ALLOWANCES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain materials and / or labor are specified in the Contract Documents by lump sum 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 / or labor to a later date when additional information is available for evaluation.

1.02 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise the Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. The Architect will issue a Proposal Request for pricing on each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. A Change Order will be processed to add the Work.
- D. Purchase products and systems selected by Architect from the designated supplier.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Include the stipulated sum of \$15,000.00 to be used as directed by the Owner.

END OF SECTION 01 21 00

SECTION 01 22 00
UNIT PRICES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. In the space indicated on the Bid Form, submit unit prices as required by this section and listed in the Unit Price Schedule. Only one value for each unit price will be allowed.
- B. A unit price is a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the quantities of Work required by the Contract Documents are increased or decreased.
- C. Refer to individual Specification Sections for construction activities requiring the establishment of unit prices.

1.02 COSTS INCLUDED

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; applicable taxes; overhead and profit.
- B. While unit prices are not to be used in the selection of the successful Bidder, they must be submitted and approved prior to execution of the Contract.
 - 1. The Owner reserves the right to reject a unit price they deem unsatisfactory and to require a resubmittal, based other bidders unit prices.
 - 2. The Owner reserves the right to reject the Contractor's measurement of quantities, and to have this Work measured by an independent party.
 - 3. The Owner reserves the right to throw out a bid that does not include a unit price or assign a unit price based on other bidders unit prices.

1.03 UNIT QUANTITIES SPECIFIED

- A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

1.04 MEASUREMENT OF QUANTITIES

- A. Take all measurements and compute quantities. Measurements and quantities may be verified by an independent party selected by the Owner.
- B. Assist by providing necessary equipment, workers, and survey personnel as required.
- C. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
- D. Measurement by Area: Measured by square dimension using mean length and width or radius.
- E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
- F. Stipulated Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.
- G. Contractor's Engineer Responsibilities: Sign surveyor's or testing agency's field notes or keep duplicate field notes , calculate and certify quantities for payment purposes.

1.05 PAYMENT

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Architect, multiplied by the unit price.
- B. Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products not completely unloaded from the transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.
 - 5. Loading, hauling, and disposing of rejected Products.

1.06 SCHEDULE OF UNIT PRICES

- A. Unit Price #1: Plywood Decking Replacement
 - 1. Description: Removal and replacement of existing deteriorated plywood roof decking.
 - 2. Unit of measurement: per 4'x8' sheet of plywood

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 22 00

SECTION 01 23 00
ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of Alternates.
- B. Acceptance of Alternates.
- C. Schedule of Alternates.

1.02 DESCRIPTION OF ALTERNATES

- A. This Section describes the limits of the requested alternates to the Contract work. Refer to the Product/Execution Articles of the appropriate Specifications and the Drawings for information pertaining to the work of each alternate.
- B. Each proposal under an alternate shall include all incidental work and all adjustments necessary to accommodate the changes. All work shall meet the requirements of the Drawings, Specifications and appropriate details.
 - 1. Contractor is responsible for providing work if applicable to each alternate, whether or not an added or deducted cost is included on their bid form.
 - 2. Taxes which are applicable to work involved in alternates as well as costs, if any, for increased coverage of bonds and insurance shall be included.
 - 3. Each Bidder shall examine the Drawings and Specifications to determine the extent to which their work is affected by bid alternates. Include in the space provided on the bid form the cost of any added or deducted work resulting from each alternate.
- C. Submit each alternate proposal as an individual cost for the particular alternate and shall be proposed under the premise that no other alternates have been accepted. Should the work of an alternate called for by the Bid Form not affect the cost of the work, state "No Change" in the space provided. If an alternate is left blank, the Owner reserves the right to throw out the entire bid or interpret the alternate as "No Change".

1.03 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement or by Change Order if agreed upon by the Contractor after the Award of the Contract.
- B. Any of the alternates may be accepted by Owner and will be used in determining the low bidder.
- C. Owner may, at their option, vary the scope of the work by authorizing alternates which will add to the work, deduct from the work or substitute materials, equipment or methods.

1.04 SCHEDULE OF ALTERNATES

- A. Alternate No. 1 - Sectional Metal Overhead Door Replacement
 - 1. Provide a cost to replace the existing sectional metal overhead doors including all associated Architectural and Electrical work as shown in the Contract Documents.
- B. Alternate No. 2 - Interior Painting
 - 1. Provide cost to perform interior painting scope as shown in the Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 IMPLEMENTATION

- A. If the Owner elects to proceed on the basis of one or more of the alternates, make all modifications to the Work required in the furnishing and installation of the selected alternate or alternates subject to the approval of the Architect at no additional cost to the Owner except as proposed in the Bid.
- B. Coordinate pertinent related work and modify surrounding work as required to properly integrate the work under each alternate, and to provide the complete construction required by Contract Documents.
- C. If so stated in the Agreement, or modifications thereto, provide alternate materials, equipment and/or construction as specified.

END OF SECTION 01 23 00

SECTION 01 25 00
SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

A. PRODUCT OPTIONS NOT REQUIRING PRE-BID SUBMITTAL

1. Where a single manufacturer is specified and acceptable manufacturer are also listed, acceptable manufacturers must provide an identical product or accept responsibility for all design implications when providing a product other than the specified product.
2. Where products are specified by reference standards, any product established by a material testing agency to meet these standards is acceptable.
3. Where multiple manufacturers and associated models are specified, select any one named.
4. Where manufacturer(s) alone are specified, select any manufacturer and the product recommended in writing by the manufacturer as most suited to the application shown on the Drawings and Specifications.
5. Where the phrase "or equal" or "equivalent" follows the name of a manufacturer, any product which meets the performance and appearance standards established by the specified manufacturer may be selected, subject to the Architect's acceptance.
6. Where a manufacturer is listed in both a technical specification section and the Interior Material Finish/Color Schedule, on the Drawings and a color is provided.

B. PRODUCT SUBSTITUTIONS REQUIRING PRE-BID SUBMITTALS

1. Step One - Manufacturers Substitution Request
 - a. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
 - 1) Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
 - 2) Agrees to provide the same warranty for the substitution as for the specified product.
 - 3) Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
 - 4) Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
 - 5) Waives claims for additional costs or time extension that may subsequently become apparent.
 - b. Attached Substitution Request Form is submitted ten (10) calendar days prior to the bid date with the following information:
 - 1) Specified manufacturer's model numbers and proposed manufacturer's product literature, noting product numbers for proposed substitutions, and where appropriate, samples and data relating to construction details.
 - (a) Clearly indicate on the literature what product is being submitted for substitution.
 - (b) If submitted literature does not match the requirements of the specified product, submit a letter stating proposed manufacturer will custom make products to meet specified product.
2. Step Two - Manufacturers Acceptance
 - a. Individual specification sections may be amended by the Architect during the bid period to include additional names of manufacturers determined to be capable of providing acceptable materials.

- b. The Interior Material Finish/Color Schedule, on the Drawings or Specifications may be amended by the Architect during the bid period to include colors by manufacturers listed in technical sections, but not noted on the Interior Material Finish/Color Schedule, on the Drawings or in the Specifications.
 - c. Architect's acceptance is based upon his determination that a manufacturer is capable of supplying acceptable materials. Approval is not assured or implied for a specific material, item of equipment, color or finish.
 - d. Official notification will be by addendum to the Contract Documents.
3. Step Three - Product Acceptance
- a. Upon award of a construction contract, accepted manufacturers may submit for review to the Architect through the General Contractor or Construction Manager, specific products, materials or equipment items as substitutes for those specified.
 - 1) Contractor to provide letter stating they will reimburse Architect to review substitutions.
 - b. Architect will review substitute products for performance, appearance, color, finish, size and suitability for inclusion in the work. If a substitute product is not accepted, submit another product by the same or other accepted manufacturer or provide the specified product.
 - c. Match specified colors and dimensions exactly, whether or not they are standard with the substitute product, unless a minor variation is accepted by the Architect.
 - d. If a substitute product is accepted, coordinate any necessary changes in other related work and pay for these changes.
 - 1) Pay cost of architectural or engineering services, if any, required to incorporate substitute products in the Work.

C. SUBSTITUTIONS BY CHANGE ORDER AFTER CONTRACT AWARD

- 1. A substitution for a specified product may be permitted by a no cost or deduct change order to the Owner if product proposed is determined to be equivalent in performance and suitability, and if at least one of the following conditions apply:
 - a. Owner is given a credit for the work.
 - b. Product is of superior quality than product specified.
 - c. Product color or finish selection is preferable.
 - d. Products specified and upon which building is designed have been discontinued by manufacturer.
- 2. Provide Architect, through Owner, reasonable compensation for product evaluation.

3.02 ATTACHMENTS

- A. A Substitution Request Form required to be used on the Project is included after this section.

END OF SECTION 01 25 00

**SECTION 01 25 01
PRE-BID SUBSTITUTION REQUEST FORM**

SUBMITTAL TO ARCHITECTS/ENGINEERS OFFICE

To: Justin Wendt
Wold Architects and Engineers
Palatine, Illinois
Via: jwendt@woldae.com

PROJECT INFORMATION

Project Owner: Waukegan Park District
Project Name: 2024 Bonnie Brook Maintenance Building Roof Replacement
Bid Date: June 25, 2024

PRE-BID SUBMITTAL REQUEST INFORMATION

Date: _____
Specification
Name: _____
Section Number: ____ ____ ____
Paragraph/Article: _____
Proposed Substitution Manufacturer:
Manufacturer Website: www._____._____
Proposed Product
Name: _____
Model: _____

CERTIFICATION

- The undersigned/manufacturer certifies they agree with the following:
1. I am the manufacturer or an authorized manufacturer's representative.
 2. The proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
 3. Literature has been submitted with the product and components clearly indicated. Any items that are different than the specification are noted.
 4. Provide the same warranty for the substitution as for the specified product.
 5. Provides the same or equivalent maintenance service and source of replacement parts, as applicable.
 6. To coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to the Owner.
 7. Waives claims for additional costs or time extension that may subsequently become apparent.

Submitted by:
Name printed clearly: _____
Firm: _____
Address: _____

Telephone: _____
Email: _____

END OF SECTION 01 25 01

**SECTION 01 26 63
CHANGE ORDERS**

PART 1: GENERAL

1.01 CHANGE ORDER PROCEDURES

- A. Changes in the Project scope of work affecting the project cost can be made only through AIA Document G701 - Change Order.
1. The procedures for processing changes in the scope of Work are listed as follows:
 2. The Architect prepares one of the following documents to modify the scope of work. Documents and attachments revising the drawings and specifications will be distributed electronically and the Contractor will be responsible for printing.
 - a. Supplemental Instructions (SI) which are used for no cost changes.
 - b. Proposal Request (PR) to be used for proposed changes that need written approval on cost prior to proceeding.
 - c. Construction Change Directive AIA Document G714 (CCD) which is used when the work must proceed immediately and time and material cost submitted as soon as possible for review by the Architect.
 3. The Contractor reviews and responds as follows:
 - a. Supplemental Instructions (SI): This no cost change is to be carried out in accordance with the following modifications to the contract documents described herein. If this change effects cost, do not proceed with this change. Notify the Architect in writing within 10 days of receipt that an itemized (labor and material) quotation will be submitted within 21 days of initial receipt of this Supplemental Instruction. If a cost is not submitted within 21 days, this Supplemental Instruction will be accepted at no additional cost.
 - b. Proposal Request (PR): Submit an itemized (labor and material) quotation for the proposed modifications to the contract documents as described herein within 21 days of receipt. If a cost is not submitted within 21 days, this Proposal Request can be accepted at no additional cost. Written approval is required prior to proceeding with this change.
 - c. Construction Change Directive AIA Document G714 (CCD): Proceed immediately to carry out this change in the contract documents as described herein. If this revision effects cost, submit an itemized (labor and material) quotation within 21 days of receipt. If a cost is not submitted within 21 days this Change Directive will be accepted at no additional cost.
 4. The Architect will review the Contractor's labor and material itemized quotation and respond in writing whether it is acceptable or needs revision. When all pricing is accepted by the Architect and Owner, a Change Order will be processed. Change Orders will be processed at increments determined by the Architect throughout the construction schedule.
- B. See the General Conditions of the Contract for Construction for methods of determining cost or credit, mark-up and schedule on submitting claims.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION 01 26 63

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Electronic document submittals.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Schedule of Values.
- F. Submittals for review, information, and project closeout.
- G. Requests for Information (RFI) procedures.
- H. Submittal procedures.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 ELECTRONIC DOCUMENT SUBMITTAL

- A. All documents transmitted for purposes of administration of the contract are to be in electronic (PDF) format, as appropriate to the document, and transmitted via email the architect's staff assigned to the project.
 - 1. Besides submittals for review, information, and closeout, this procedure applies to Requests for Information (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and any other document any participant wishes to make part of the project record.
 - 2. It is Contractor's responsibility to submit documents in allowable format.
 - 3. All other specified submittal and document transmission procedures apply, except that electronic document requirements do not apply to samples or color selection charts.

3.02 LIST OF MATERIALS

- A. Within 7 days after the award of the Contract (notice to proceed or letter of intent), submit a complete list electronically of all material, products, and equipment proposed to be used in construction to the Architect for acceptance.
 - 1. Do not order materials until the proposed listed materials, products and equipment to be used in construction are accepted by the Architect.
- B. Where two or more makes or kinds of items are named in the specifications (or additional names are called for in addenda), the Contractor shall state which particular make or kind of each item they proposes to provide. If the Contractor fails to state a preference, the Owner shall have the right to select any of the makes or kinds named without change in price.
- C. This list shall be arranged generally in order of specification sections. The items listed shall fully conform to project requirements and specifications. All materials are subject to the Architect's acceptance.
 - 1. After acceptance, changes or substitutions will not be permitted.
- D. Clearly identify or list the material, product or equipment by manufacturer and brand by listing the names for all items, including those where only one material or product is specified. Each and every material, product and equipment shall be specifically named, not listed "as specified".

3.03 LIST OF SUBCONTRACTORS

- A. Immediately after Contract award submit a subcontractor and supplier list.
 - 1. Propose use of subcontractors or sub-subcontractors who are established, reputable firms of recognized standing with a record of successful and satisfactory past performance. Include the following information: specification section, item of work, subcontractor or supplier, material/manufacturer (as specified will not be allowed), project manager, phone and email. List major sub-subcontractors for mechanical and electrical work. Use only those subcontractors (and sub-subcontractors, when appropriate) who are acceptable to the Architect and Owner on the Work.

- B. Prior to contract award, submit electronically a signed and notarized Minnesota Responsible Contractor Compliance Affidavit from each subcontractor as outlined in the General Conditions of the Contract for Construction.
 - 1. Changes to subcontractors during the project will require a resubmittal of a Minnesota Responsible Contractor Compliance Affidavit.

3.04 SCHEDULE OF VALUES

- A. Requirements
 - 1. Submit Schedule of Values to Architect ten (10) days prior to first Application For Payment (AIA Form G702, G702a).
 - a. Break down labor and material separately.
 - b. Round off amounts to nearest ten dollars.
 - c. Provide separate line items for each of the following items:
 - 1) Operations and Maintenance Manuals, equaling of 0.125% of Contract value.
 - 2) As-Built Drawings, equaling of 0.0625% of Contract value.
 - 3) Training, equaling of 0.125% of Contract value.
 - 4) Attic Stock Materials, equaling 0.0625% of Contract value.
 - 2. Use Schedule of Values only as basis for Contractor's Application For Payment.
- B. Form of Submittal
 - 1. Base format on Sections listed in Section 00 01 10 - Table of Contents, as well as, the Mechanical Electrical, Communications and Security Table of Contents. Break down labor and material separately.

3.05 CONSTRUCTION SCHEDULES

- A. Refer to Section 01 32 16 - Construction Progress Schedule.

3.06 PRECONSTRUCTION MEETING

- A. Schedule meeting within 15 days after Notice to Proceed.
- B. Attendance Required:
 - 1. Owner's representative.
 - 2. Architect and their consultants.
 - 3. Contractor's Project Manager and Site Superintendent.
 - 4. Major Subcontractors.
 - 5. Major Suppliers.
 - 6. Others as appropriate.
- C. Agenda:
 - 1. Distribution and discussion of:
 - a. List of subcontractors.
 - b. List of major suppliers.
 - c. Projected construction schedules.
 - d. Submittal schedule.
 - e. Scheduling of pre-installation conferences.
 - 2. Project coordination and scheduling:
 - a. Designation of responsible personnel representing the Owner, Contractor, Architect and Architect's Consultants.
 - b. Major equipment deliveries and priorities, including expected submittals for such.
 - c. Critical work sequencing.
 - d. Mock-up Panels.
 - e. Temporary utilities.
 - f. Use of onsite utilities.
 - 3. Procedures and processing of: field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - a. Status of Building Permit.
 - b. Field decisions.
 - c. Submittals.

- d. Product substitutions.
- e. Applications for payments.
- f. Time limit on claims of 21 days.
- g. Proposal Requests and Supplemental Instructions.
- h. Change Orders.
- i. Scheduling activities of a Geotechnical Engineer.
- 4. Procedures for maintaining Record Documents.
- 5. Use of Premises:
 - a. Office, work and storage areas.
 - b. Owner's requirements.
- 6. Construction facilities, controls and construction aids.
 - a. Construction Dust Control and Periodic Cleaning:
 - 1) Submittal of work area and procedures schedule.
 - 2) Dust proof enclosures.
 - 3) HEPA filters on vacuums.
 - 4) Maintaining negative air flow.
 - 5) Dust control by watermist of surfaces.
 - 6) Debris removal weekly.
 - 7) Daily cleaning requirements.
 - b. Failure to Comply.
 - 1) A written warning will be issued for correction.
 - (a) If correction notice is not complied within 8 hours, Owner may stop work or take over cleaning.
 - (b) Cost will be borne by Contractor.
 - c. Final Cleaning:
 - 1) Schedule in time for Owner to complete furniture installation, and cleaning/waxing of floors.
 - 2) Any cleaning done by the Owner due to unacceptable cleaning by the Contractor, or not proceeding in a timely fashion will be back charged to Contractor.
- 7. Contractor to record minutes and distribute copies within two days after meeting to participants, with electronic copies to Architect, Owner, participants, and those affected by decisions made.

3.07 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the work at regular intervals and as required due to the progress of the work.
- B. Hold called meetings at the Contractor's project field office.
- C. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect may attend as needed.
 - 4. Architect' consultants may attend as needed.
 - 5. Contractor's superintendent.
 - 6. Subcontractors appropriate to the progress of the work.
 - 7. Suppliers and manufacturer's representatives as appropriate to the agenda.
- D. Agenda:
 - 1. Review and approval of minutes from previous meetings.
 - 2. Review of work progress since previous meeting.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.

8. Corrective measures to regain projected schedules.
 9. Planned progress during succeeding work period before the next meeting.
 10. Maintenance of quality and work standards.
 11. Effect of proposed changes on progress schedule and coordination.
 12. Other business relating to work.
- E. Contractor to record minutes and distribute copies within two days after meeting to participants, with electronic copies to Architect, Owner, participants, and those affected by decisions made.

3.08 REQUESTS FOR INFORMATION (RFI)

- A. Definition: A request seeking one of the following:
1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
1. Prepare a separate RFI for each specific item.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do Not forward requests which solely require internal coordination between subcontractors.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
 2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of substitutions.
 - b. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
 - c. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
 3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
 4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question.
 - a. They will be rejected.
 - b. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
1. Official Project name and number, and any additional required identifiers established in Contract Documents.
 2. Discrete and consecutive RFI number, and descriptive subject/title.
 3. Issue date and requested reply date no sooner than 7 working days.
 4. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
 5. Annotations: Field dimensions and/or description of conditions which have engendered the request.

6. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
 1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.

3.09 SUBMITTAL SCHEDULE

- A. Submit to Architect for review a schedule for submittals in tabular format.
 1. Submit at the same time as the preliminary schedule specified in Section - 01 32 16 - Construction Progress Schedule.
 2. Coordinate with Contractor's construction schedule and schedule of values.
 3. Format schedule to allow tracking of status of submittals throughout duration of construction.
 4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
 5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
 - a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.10 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
 1. Prepare clearly identified shop drawings or schedules to this specific project, containing only data applicable. Include with the shop drawings or schedules a letter of transmittal listing and dating the submitted drawings in sets.
 2. Contractor to review all submittals prior to submittal to Architect, and indicate such review with a stamp and signature. Review submittals for conformance to Drawings, Specifications, coordination with other trades and adjacent construction and verification of field dimensions. Failure of Contractor to adequately review submittals shall be cause for rejection.
 3. Prepare and submit electronically (with exception for color charts and samples) to Architect for review, all shop drawings and manufacturers catalog sheets showing illustrated cuts of items to be furnished, scale details, sizes, dimensions, performance characteristics, capacities, wiring diagrams, weights and arrangements. Each submittal to include a transmittal on contractor letterhead. Submittal to be in the form of one combined PDF, labeled with project name, professionally assembled so all documents are facing the same way.
- C. If equipment other than that used in the design of this project is proposed to be used, the Contractor and/or supplier shall verify electrical differences, dimension variations and weight increases. The Contractor shall be responsible for any extra costs incurred as a result of equipment substitutions.

- D. Samples will be reviewed for aesthetic, color, or finish selection.
 - 1. Unless otherwise specified, submit samples of size, and nature representing typical qualities. Where required, submit a sufficient number of samples to demonstrate the complete range of variations of the material or quality. Written acceptance of the Architect is required prior to ordering any item for which samples are required.
- E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - Closeout Submittals.

3.11 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner.

3.12 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 78 00 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- D. Submit Demonstration and Training recorded training modules.
- E. Submit for Owner's benefit during and after project completion.

3.13 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.14 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
 - 3. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
 - a. When labeling shop drawings or product data, include the Specification Section number of where the product is specified for a submittal. For example, for cavity wall insulation Section 07 21 00 - Insulation does not require an insulation submittal, but Section 04 20 00 - Non-Bearing Unit Masonry does require that submittal.
 - 4. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will be rejected.

5. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Deliver submittals to Architect via email.
 - b. Submit samples to Architect's office, securely packaged, with the name of the Owner and Project clearly indicated on the package exterior. Each physical sample shall have a label or tag, firmly attached to the sample, bearing the following information: (a) Name of Owner and Project, (b) Name of Supplier, (c) Name of Contractor, and (d) Product information such as manufacturer's designation, finish, type, class, grade, etc. as is appropriate. The Architect will retain one copy of each sample.
 6. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. When submitting multiple submittals at the same time, provide the Architect with a priority list for review.
 - b. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
 - c. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
 - d. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
 7. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 8. When revised for resubmission, identify all changes made since previous submission.
 9. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
 10. Submittals not requested will not be recognized or processed.
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
 2. Collect required information into a single submittal.
 3. Submit concurrently with related shop drawing submittal.
 4. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 2. Do not reproduce Contract Documents to create shop drawings.
 - a. Contractor is to generate shop drawings based on the information identified in the contract documents and notify the architect of discrepancies in the documents.
 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
1. Transmit related items together as single package.
 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.15 SUBMITTAL REVIEW

- A. The Architect will take one of the following actions on submittals:
 1. "Reviewed": Contractor shall proceed with ordering and/or fabrication.
 2. "Review Comments": Contractor shall proceed with ordering and/or fabrication after taking into account noted comments.
 3. "Rejected": Contractor shall provide a submittal that meets the intent of the specifications.
 4. "Revise and Resubmit": Contractor shall modify submittal to address comments and resubmit.
- B. Submittals for Information: Architect will not acknowledge receipt, and take no other action.

END OF SECTION 01 30 00

SECTION 01 31 26
ELECTRONIC BACKGROUND DOCUMENTS

PART 1 GENERAL

1.01 SUMMARY

- A. The Architect will provide the Contractor with one (1) electronic copy of the background drawing relevant to their request. Requested files will be provided via email to the Contractor in AutoDesk AutoCAD format.
- B. The terms and conditions on the attached form “Agreement Between Architect and Contractor for Transfer of Computer Aided Drafting (CAD) Files on Electronic Media” apply to all Electronic Documents issued by Wold Architects and Engineers or it’s consultants for the project.
- C. Exceptions:
 - 1. Electronic Documents by other consultants on the project may need to sign an additional Agreement for Electronic File Transfer that can be made available upon request.
- D. Electronic Document Availability
 - 1. After Bid: Backgrounds as requested by the awarded contractors at the discretion of the Architect or Engineer. Electronic Documents are available upon completion of “Attachment A - Agreement Between Architect and Contractor for Transfer of Computer Aided Drafting (CAD) Files on Electronic Media” by the:
 - a. General Contractor on the project.
- E. See attached form “Attachment A – Agreement Between Architect and Contractor for Transfer of Computer Aided Drafting (CAD) Files on Electronic Media.”

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION 01 31 26

SECTION 01 31 27

ELECTRONIC BACKGROUND DOCUMENTS-ATTACHMENT A

AGREEMENT BETWEEN ARCHITECT AND CONTRACTOR FOR THE TRANSFER OF COMPUTER AIDED DRAFTING (CAD) FILES ON ELECTRONIC MEDIA

2024 Bonnie Brook Maintenance Building Roof Replacement

The purpose of this agreement is to grant permission from the Transmitting Party (Architect and/or Engineer) to the Receiving Party (Contractor, Bidder) for the Receiving Party's use of Electronic Media on the Project, and to set forth the terms of such use. Electronic Media is defined to include all data or files transmitted. All Electronic Media is considered confidential and containing business proprietary information. Wold Architects & Engineers and its consultants grant the Receiving Party a limited license to use Electronic Media issued by Wold Architects & Engineers exclusively for this Project. The terms are set forth as follows:

The Electronic Media is transmitted for the Receiving Party's convenience and remains the sole property of Wold Architects and Engineers and/or its consultants.

- 1 The Transmitting Party makes no warranty, expressed or implied, including warranties of merchantability or fitness for a particular purpose, respecting the Electronic Media or the files therein. The Transmitting Party makes no representation regarding the accuracy, completeness, or permanence of the Electronic Media or the files therein.
- 2 The Electronic Media or files therein depict information only at the specific point in time of preparation and may not include final data or represent exact as-built conditions. Addenda information or revisions made after the date indicated on the files may not have been incorporated. The Receiving Party is solely responsible for verifying all field conditions against the Electronic Media or files therein and making all necessary adjustments. The Receiving Party is solely responsible for determining whether any changes made after it receives the Electronic Documents affect any services or work it provided using the Electronic Documents and for updating any such services or work.
- 3 The Electronic Media and files therein are not considered to be Contract Documents as defined by the General Conditions of the Contract for Construction. In the event of a conflict between the Architect's and/or Engineer's sealed Contract Drawings and the Electronic Media files, the sealed Contract Drawings shall govern. It is the Receiving Party's responsibility to determine if any conflicts exist.
- 4 Neither Wold Architects and Engineers nor its consultants are responsible for any decline in accuracy or readability due to the medium on which the Electronic Media are stored, or for any unintentional transmission of computer viruses.
- 5 The Electronic Media and the files therein may not be used by the Receiving Party for any purpose other than as a convenience in the preparation of Shop Drawings, layout, and other purposes related to the Project. Any use or reuse of the Electronic Media of the files therein, by the Receiving Party or others, are at the Receiving Party's sole risk and without liability or legal exposure to the Architect, Engineers, or their consultants.
- 6 The Architect reserves the right to determine what content will be distributed to the Receiving Party.

BY SIGNING BELOW, THE RECEIVING PARTY AGREES TO THE TERMS SET FOR BY THIS AGREEMENT.

AUTHORIZED ACCEPTANCE:

By Receiving Party/Contractor of Record

Signature

Print Name and Title

Print Name of Company

Date

END OF SECTION 01 31 27

SECTION 01 32 16
CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preliminary schedule.
- B. Construction progress schedule, bar chart type.

1.02 SUBMITTALS

- A. Within 10 days after date of Agreement, submit preliminary schedule.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.
- F. Submit in PDF format.

1.03 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or specialist Consultant specializing in CPM scheduling with one years minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.04 SCHEDULE FORMAT

- A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRELIMINARY SCHEDULE

- A. Prepare preliminary schedule in the form of a horizontal bar chart.

3.02 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.
- C. Identify work of separate stages and other logically grouped activities.
- D. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- E. Provide legend for symbols and abbreviations used.

3.03 CONSTRUCTION PROGRESS BAR CHART SCHEDULE

- A. Prepare a horizontal bar chart schedule for complete construction duration.

3.04 CONTRACTORS LOOK AHEAD SCHEDULE

- A. Prepare a horizontal bar chart look ahead schedule to project work to be completed before the next construction meeting.
- B. Present the schedule at each construction meeting.

3.05 BAR CHARTS

- A. Include a separate bar for each major portion of Work or operation.
- B. Identify the first work day of each week.

3.06 UPDATING SCHEDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of Work.
- D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Substantial Completion.
- F. Submit reports required to support recommended changes.

3.07 DISTRIBUTION OF SCHEDULE

- A. Include a revised bar chart schedule with each Application and Certificate for Payment.

- B. Distribute copies of updated schedules to Contractor's project site file, to subcontractors, suppliers, Architect, Owner, and other concerned parties.
- C. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

END OF SECTION 01 32 16

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and construction dust control.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.

1.02 TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Electrical power, consisting of paying for utility charges on existing services.
 - a. Temporary power and lighting, refer to Div. 26.
 - 2. Water supply, consisting of paying for utility charges on existing services.
- B. Contractor will:
 - 1. Engage appropriate local utility company to install temporary service or connection to existing service. Where the utility company provides only part of the service, provide the remainder of the service with matching, compatible materials and equipment, comply with utility company requirements.
 - a. Arrange with the Utility Company, Owner and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
 - b. Provide adequate capacity at each stage of construction. Provide mobile power as needed before temporary power is connected.
 - c. If required, obtain easements to bring temporary utilities to the project site, where Owner's easements cannot be used for that purpose.
- C. Existing toilet facilities may not be used.
 - 1. Provide and maintain required sanitary facilities and enclosures. Provide at time of project mobilization.
 - 2. Maintain daily in clean and sanitary condition.
- D. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses as required by the local Fire Marshal or Building Official.
 - 1. If directed by the Building Official or Fire Marshal, provide fire watch with personnel acceptable to authorities until permanent fire-protection is activated.
 - 2. Provide temporary fire extinguishers, type and quantity as designated by local authorities.

1.03 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Provide a portable cellular telephone for superintendent's use.

1.04 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way, exiting through the construction site and for public access to existing building.
 - 1. Review exiting that will be blocked with the local Fire Marshal and gain approval for exiting of those areas prior to blocking the exits.
- C. Provide temporary fencing at the drip line for protection for plants and trees designated to remain. Replace damaged items.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.05 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide 6 foot (1.8 m) high fence around construction site when designated on the site plan; equip with vehicular and pedestrian gates with locks.

1.06 EXTERIOR ENCLOSURES

- A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.07 INTERIOR PROTECTION

- A. Provide temporary sound insulated partitions as indicated to separate work areas from the Owner's occupied areas, to prevent penetration of dust and moisture into the Owner's-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing, fiberglass insulation and gypsum board over plywood sheet materials with closed joints and sealed edges at intersections with existing surfaces.
 - 1. Maximum flame spread rating of 75 in accordance with ASTM E84.
- C. Floor Protection:
 - 1. Protect all carpet to remain with 3 mil self-adhering clear poly film utilizing tack water-based adhesive poly film guard in areas of construction when not shown on Floor Protection Plans.
 - 2. When indicated on Floor Protection Plans, provide heavy duty, temporary floor protection to prevent penetration of spills and allow water vapor transmission from below. Seal with manufacturers recommended seam tape.
 - 3. Manufacturer/Product: RamBoard, Inc.: RamBoard; www.ramboard.com.
- D. Furniture and Equipment Protection:
 - 1. Cover all furniture and equipment remaining in the space with polyethylene. Seal with tape to prevent dust/dirt from reaching the furniture and equipment.
- E. Limit food and soft drink consumption to within the Contractor's trailer or out of the building.

1.08 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and the Owner's operations from unauthorized entry, vandalism, or theft.

1.09 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and the Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Designated existing on-site roads may be used for construction traffic.
- F. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
- G. Existing parking areas designated by the Owner may be used for construction parking.
- H. Remove snow and ice as required to minimize accumulations and provide access to and throughout the site as required to complete the work/fire department access.

1.10 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids.
 - 1. Debris shall be removed from the construction site and police exterior project site area on a weekly basis at a minimum to clean-up any wind-blown or excess construction materials or debris and dispose of in construction dumpsters to maintain a clean project site.

- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.11 HOUSEKEEPING

- A. Do not allow debris to accumulate on-site or within the building work areas. The Contractor shall implement and provide the following cleaning services:
 - 1. Building Interior:
 - a. Daily clean the entire interior floor of the building construction and renovation areas to remove visible dust and debris.
 - 1) Debris includes, but not limited to empty cartons and packaging, all building material scraps and other waste or refuse from the interior of the building and dispose of in the Contractor's construction dumpsters located outside the building.
 - 2) When sweeping is performed, utilize sufficient quantities of clean sweeping compound to control the air-borne dust.
 - 3) Sweeping compound shall not be used on finished floor systems or terrazzo floors.
 - b. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
 - c. Owner occupied areas, with construction activity or adjacent to dustproof enclosures floors and walls that are contaminated by discharge or release from work area or by dust migration or transport shall be HEPA vacuumed on a daily basis.
 - d. Walk-off mats shall be provided at all exterior entrances and at entrances to dustproof enclosure areas that are utilized by the workers.
 - 1) To prevent transport of dirt and debris to other surfaces or discharge into the air, mats shall be cleaned/HEPA vacuumed on a daily basis (more frequently if visible dirt and debris are observed) and change out mats on a monthly basis.
 - e. Areas that workers have access to with final floor finish in place shall be HEPA vacuumed on a daily basis. Carpeted major circulation paths shall be covered with poly film guard. Replace poly film guard when it develops holes or tears as they occur. Poly film guard to be replaced if left in place over 45 days. Horizontal and vertical surfaces shall be wiped down as construction dust has accumulated.
 - f. Where Contractor has periodic access to ancillary spaces occupied by Owner, thoroughly clean after each use, including HEPA vacuuming, so as to not disrupt Owner's ongoing operations.
 - 2. Exterior/Site:
 - a. On a daily basis:
 - 1) Broom clean the sidewalks to remove dust, loading dock/steps, at project construction personnel access locations, and material delivery or waste disposal locations.
 - 2) Remove debris from and police the exterior project site area to clean up any and remove windblown construction materials or debris or materials that could become windblown and dispose of in Contractor's construction dumpsters.
 - 3) Pickup and remove debris on the site from the work, including windborne debris that has blown onto site areas or adjacent property.
 - 4) Repair any damage to the temporary construction fence system.
 - 5) Repair damage to the site stormwater temporary erosion control system and storm water management systems.
 - b. Weekly remove dust and debris from ledges.
 - c. When visible dust and debris accumulate on site pavement, perform sweeping operations and related work to capture and remove those materials.

- B. Failure to comply with housekeeping procedures.
 - 1. A written warning will be issued for correction by the Architect.
 - a. If correction notice is not complied within 8 hours, Owner may take over cleaning.
 - b. Cost will be back charged to the Contractor(s) by Change Order.

1.12 CONSTRUCTION DUST CONTROL

- A. Provide Construction Dust Control on projects with areas occupied during construction, including dust producing construction during punchlist correction.
- B. Air Quality Contaminant Control:
 - 1. Ventilate barricaded construction areas by use of fans to the outside of building.
 - 2. Maintain a minimum negative pressure of -0.01 inch (-0.254 mm) WC with door closed at barricade entrance openings by use of fans vented to outside of building.
 - a. Rebalance air handling equipment to maintain correct airflow to occupied areas as required.
 - 3. Secure operable exterior windows and interior doors/windows not required for construction access as required to maintain negative pressure.
 - 4. Provide additional local exhaust during welding.
- C. Dustproof enclosures:
 - 1. Install dustproof enclosures for work when required to protect areas occupied by the Owner from dust, debris and damage.
 - a. Enclosures must be tight to cut off any flow of dust particles into occupied areas by sealing openings with tape or other impenetrable sealant to seal barrier wall seams, cracks around window and door frames, exhaust system ductwork, pipes, floor penetrations, joints and ducts.
 - 2. Block supply and return ventilation as to not recirculate air from construction area to air handlers supplying occupied areas or to prevent contamination of existing ductwork to remain.
 - 3. Install filters on exterior air handling equipment intakes adjacent to exhaust fans.
 - 4. For work creating dust outside of dustproof enclosures, provide temporary sealed enclosures around the work area.
- D. Procedures:
 - 1. Contractor shall maintain all construction dust control devices throughout the construction period.
 - a. Traffic between barricaded areas and open areas shall be kept to a minimum.
 - 1) Instruct workers to refrain from tracking dust into adjacent occupied areas or opening windows or doors allowing construction dust/airborne contaminants into adjacent occupied areas.
 - b. Whenever possible, transport materials and refuse into an area from an external site without violating occupied areas.
 - c. Execute work by methods to minimize raising dust from construction operations.
 - 1) Spray surfaces with water mist during dust-producing interior demolition activities.

1.13 OPERATION, REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 - 1. Protect water piping from damage caused by freezing temperatures and similar elements.
 - 2. Maintain markers and protect underground utilities from damage during excavation operations.
- B. Temporary Facility Changeover: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Date of Substantial Completion.
- C. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- D. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- E. Clean and repair damage caused by installation or use of temporary work.
- F. Restore existing facilities and exterior landscaping used during construction to original condition.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION 01 50 00

SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Cleaning and protection.
- F. Substantial Completion and Final Completion procedures, including Contractor's Correction Punch List, except payment procedures.
- G. General requirements for maintenance service.

1.02 COORDINATION

- A. See Section 01 10 00 for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.
- H. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

2.02 CLEANING MATERIALS

- A. Cleaning materials as recommended by manufacturer of surface to be cleaned, as well as recommended by the cleaning material manufacturer for those materials being cleaned.
- B. Vacuums that are HEPA rated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect thirty days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Contractor to record minutes and distribute copies within two days after meeting to participants, with electronic copies to Architect, Owner, participants, and those affected by decisions made.

3.04 FINAL CLEANING COORDINATION MEETING

- A. When requested by the Owner, the Construction Manager or General Contractor shall coordinate a final cleaning coordination meeting 30 days prior to the start of cleaning to establish the phasing of the areas to be final cleaned by the Cleaning Contractor and for reviewing the requirements of the final cleaning as required for Owner move-in.
- B. Attendants:
 - 1. Owner.
 - 2. Architect.
 - 3. General Contractor.
 - 4. Cleaning Contractor.
- C. Cleaning Contractor in conjunction with the Construction Manager or General Contractor shall provide a detailed schedule, including a work plan, respective dates for each area and tasks for the work and quantity of personnel.

3.05 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.06 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 50 00 .

- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. Provide temporary connections as required to maintain existing systems in service.
 - 4. Verify that abandoned services serve only abandoned facilities.
 - 5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 - 3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
 - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.

- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-complying work.
- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing.
 - 1. In existing work, minimize damage and restore to original or specified condition.
- E. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 84 00, to full thickness of the penetrated element.
- J. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.08 PROTECTION OF INSTALLED WORK

- A. See Section 01 50 00 - Temporary Facilities and Controls for temporary protective covering materials for flooring.
- B. Protect installed work from damage by construction operations.
- C. Provide special protection where specified in individual specification sections.
- D. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- E. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- F. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- G. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace moisture soaked materials.
- H. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- I. Prohibit traffic from landscaped areas when possible. Repair when damaged.
- J. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.09 ADJUSTING

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

3.10 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion.
- B. Use cleaning materials that are nonhazardous.
- C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, grease, dust, fingerprints polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- F. Replace filters of operating equipment as specified in Division 23 specifications
- G. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- H. Clean site; sweep paved areas, rake clean landscaped surfaces.
- I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- J. Coordinate with the Construction Manager or General Contractor to have marred surfaces repaired, patched or touched-up to match adjacent surfaces.
- K. Maintain cleaning until the building or portion thereof, is occupied by the Owner.

3.11 SUBSTANTIAL AND FINAL COMPLETION PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 - 1. Provide copies to Architect and Owner.
- B. Obtain and submit to the Architect a Certificate of Occupancy from AHJ.
- C. Provide preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- D. Notify Architect in writing when work is considered ready for Architect's Substantial Completion inspection.
- E. Architect will visit the project to evaluate the request for issuance of a Certificate of Substantial Completion.
 - 1. If the Architect concurs that the Project is substantially complete, the Architect will deliver a Certificate of Substantial Completion and a list of work items necessary for completion or correction prior to request for inspection for final completion.
 - 2. If the Architect determines that the work is not substantially complete, the Architect will deliver to the Contractor a written statement including reasons.
- F. Complete work on the items required by the Architect for achieving substantial completion and make additional written requests for issuance of a Certificate of Substantial Completion until the Architect determines that sufficient Work has been performed.
- G. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- H. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- I. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- J. When the punchlist work is considered complete, submit written certification that:
 - 1. When work is considered finally complete and ready for Architect's Final Completion inspection.
 - 2. The Building Permit has been finalized by the AHJ and submit a copy for the Architects and Owners record.

- K. Architect will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
 - 1. Should Architect consider that the Work is incomplete or defective:
 - a. Architect will notify the Contractor in writing, listing the incomplete or defective work.
 - 1) Take immediate steps to remedy the stated deficiencies and send a second written certification to Architect that the Work is complete.
 - 2) Architect will reinspect the Work.
 - 2. Should Architect perform reinspection's due to failure of the Work to comply with the claims of status of completion made by the Contractor:
 - 3. Owner will compensate Architect for such additional services.
 - a. Owner will deduct the amount of such compensation from the final payment.

3.12 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION 01 70 00

**SECTION 01 78 00
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project record documents.
- B. Operation and maintenance data.
- C. Warranties and bonds.

1.02 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
- B. Operation and Maintenance Data:
 - 1. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 2. Submit one copy of completed documents 15 days after Substantial Completion. This copy will be reviewed and returned, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 3. Submit two sets of revised final documents in final form and one digital copy 60 days before final inspection.
- C. Warranties, Bonds and other required forms:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.
- D. Final Adjustment of Accounts.
 - 1. Make submittals within 30 days prior to final Application for Payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Change Orders and other modifications (accepted PR's, SI's and CCD's) to the Contract.
 - 4. Reviewed shop drawings, product data, and samples.
 - 5. Field test reports.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction in a location protected from the weather.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions accepted during construction.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Label each set of Drawings "RECORD DOCUMENTS".
 - 2. Measured depths of foundations in relation to finish first floor datum.
 - 3. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.

5. Field changes of dimension and detail.
 6. Details not on original Contract drawings.
- G. Shop Drawings – Label each set by corresponding specification section. At the completion of the project, provide the Owner with one complete set, reviewed and stamped by architect, organized by specification section in the following formats:
1. Paper (various sizes) folded to 8 1/2” x 11” and boxed with project name and completion date clearly labeled on exterior.
 2. Scanned PDF copy on a flash drive, ordered by specification section.

3.02 OPERATION AND MAINTENANCE DATA

A. Physical Format for Binders:

1. Commercial quality three-ring binders with durable , cleanable plastic cover in 8-1/2 x 11 inch (215.9 x 279.4 mm) size and maximum thickness of 2 inches (50.8 mm).
 - a. When multiple binders are used, correlate the data into related consistent groupings.
2. Manufacturer's printed data or typed pages on 20 pound (9.072 kg) weight white paper.
3. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - a. Provide typed description of product, and major component parts of equipment.
 - b. Provide indexed tabs.
4. Identify each volume with typed or printed title "OPERATING, MAINTENANCE AND WARRANTY INSTRUCTIONS". Listing:
 - a. Title of Project
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
5. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.
 - b. Fold larger drawings to the size of the text pages.

B. Digital Format:

1. Submit one PDF copy on a flash drive.

C. Content:

1. Arrange neatly typewritten table of contents for each volume, in the following systematic order.
 - a. Contractor, name of responsible principal, address and telephone number.
 - b. A list of each product required to be included, indexed to the content of volume.
 - c. List, with each product, the name, address and telephone number of:
 - 1) Contractor or installer.
 - 2) Maintenance contractor, as appropriate.
 - 3) Identify the area of responsibility of each.
 - 4) Local source of supply for parts and replacement.
 - 5) Include warranty information as specified.
 - d. Identify each product by product name and other identifying symbols such as set in Contract Documents.
2. Product Data
 - a. Include only those sheets which are pertinent to the specific product.
 - b. Annotate each sheet to clearly identify the specific product or part installed.
3. Content, for moisture-protection and weather-exposed products:
 - a. Manufacturer's data, giving full information on products.
 - 1) Applicable standards
 - 2) Chemical composition
 - 3) Details of installation
 - 4) Instructions for inspection, maintenance and repair.
4. Additional requirements for maintenance data: The respective technical sections of the Project Manual.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
 - 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

3.04 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

3.05 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after Substantial Completion. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized including:
 - 1. Contractor's Affidavit of Payment of Debts and Claims, AIA Document G706, with exceptions itemized by subcontractor and amounts owed each.
 - 2. Contractors Affidavit of Release of Liens, AIA Document G706A.
 - 3. Consent of Surety to Final Payment on Consent of Surety Company to Final Payment, AIA Document G707.
 - 4. Warranties and Bonds.

3.06 FINAL ADJUSTMENT OF ACCOUNTS TO FINAL PAYMENT

- A. Submit a final statement of accounting to the Architect.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Allowances.

END OF SECTION 01 78 00

SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.01 SUMMARY

- A. Demonstration of products and systems where indicated in specific specification sections.
- B. Training of Owner personnel in operation and maintenance is required for:
 - 1. All software-operated systems.
 - 2. Electrical systems and equipment.
 - 3. Items specified in individual product Sections.
- C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
 - 1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
 - 2. Finishes, including flooring, wall finishes, ceiling finishes.
 - 3. Items specified in individual product Sections.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Training Plan: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
 - 1. Submit to Architect for transmittal to Owner.
 - 2. Submit not less than four weeks prior to start of training.
 - 3. Revise and resubmit until acceptable.
 - 4. Provide an overall schedule showing all training sessions.
 - 5. Include at least the following for each training session:
 - a. Identification, date, time, and duration.
 - b. Description of products and/or systems to be covered.
 - c. Name of firm and person conducting training; include qualifications.
 - d. Intended audience, such as job description.
 - e. Objectives of training and suggested methods of ensuring adequate training.
 - f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
 - g. Media to be used, such as slides, hand-outs, etc.
 - h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.
- C. Training Manuals: Provide training manual for each attendee as designated by the Owner:
 - 1. Include applicable portion of O&M manuals.
 - 2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
 - 3. Provide one extra copy of each training manual to be included with operation and maintenance data.
- D. Video Recordings: Submit digital video recording of each demonstration and training session for Owner's subsequent use.
 - 1. Format: DVD Disc.
 - 2. Label each disc and container with session identification and date.

1.03 QUALITY ASSURANCE

- A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
 - 1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
 - 2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 DEMONSTRATION - GENERAL

- A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.

- B. Demonstration may be combined with Owner personnel training if applicable.
- C. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
 - 1. Perform demonstrations with-in one month after Substantial Completion, unless directed differently by the Owner.
 - 2. For equipment or systems requiring seasonal operation, perform demonstration for other season within eight months.
- D. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
 - 1. Perform demonstrations with-in one month of Substantial Completion, unless directed differently by the Owner.
- E. Demonstration and Training Recording: Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
 - 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
 - 2. Submit media to Owner with-in two weeks of date the Demonstration and Training occurred.

3.02 TRAINING - GENERAL

- A. Conduct training on-site unless otherwise indicated.
- B. Owner will provide classroom and seating at no cost to Contractor.
- C. Provide training in minimum two hour segments.
- D. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.
- E. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
 - 1. The location of the O&M manuals and procedures for use and preservation; backup copies.
 - 2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
 - 3. Typical uses of the O&M manuals.
- F. Product- and System-Specific Training:
 - 1. Review the applicable O&M manuals.
 - 2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
 - 3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
 - 4. Provide hands-on training on all operational modes possible and preventive maintenance.
 - 5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
 - 6. Discuss common troubleshooting problems and solutions.
 - 7. Discuss any peculiarities of equipment installation or operation.
 - 8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
 - 9. Review recommended tools and spare parts inventory suggestions of manufacturers.
 - 10. Review spare parts and tools required to be furnished by Contractor.
 - 11. Review spare parts suppliers and sources and procurement procedures.
- G. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

3.03 DEMONSTRATION

- A. Manufacturer's onsite field technician shall demonstrate the operation of items specified in the specific Technical Sections to the Owner.
 - 1. A video outlining the operation of the item or system, scheduled maintenance, basic troubleshooting and care of the item or system shall be provided to the Owner by the manufacturer.

END OF SECTION 01 79 00

SECTION 02 41 00
DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Selective demolition of building elements for alteration purposes.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Schedule indicating proposed sequence of operations for selective demolition work to Owner's Representative/Construction Manager for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services as required, together with details for dust and noise control.
- C. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
 - 1. Coordinating with the Owner's continuing occupation of portions of existing building and with Owner's partial occupancy of completed new construction areas.

1.03 SELECTIVE DEMOLITION JOB CONDITIONS

- A. Occupancy: Owner will occupy portions of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner's Representative of demolition activities that will affect Owner's normal operations.
- B. Condition of Structures: Owner assumes no responsibility for actual condition of items or structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, minor variations within structure may occur by Owner's removal and salvage operations prior to start of selective demolition work.
- C. Partial Demolition and Removal: Items indicated to be removed but of salvageable value to Contractor may be removed from structure as work progresses. Transport salvaged items from site as they are removed.
 - 1. Storage or sale of removed items on site will not be permitted.
- D. Protection: Provide temporary barricades and other forms of protection to protect Owner's personnel, students and general public from injury due to selective demolition work.
 - 1. Coordinate protective measures with those to be performed or constructed for asbestos abatement work. Avoid duplication of work where practical.
 - 2. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to occupied portions of building.
 - 3. Erect temporary covered passageways as required by authorities having jurisdiction.
 - 4. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain.
 - 5. Protect from damage existing finish work that is to remain in place and which becomes exposed during demolition operations.
 - 6. Protect floors with suitable coverings when necessary.
 - 7. Construct temporary insulated dustproof partitions where required to separate areas where noisy, dirty or dusty operations are performed. Construct partitions out of metal stud, poly and gypsum board and provide dustproof doors and security locks.
 - 8. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.
- E. Damages: Promptly repair damages caused to adjacent facilities by demolition work.
- F. Traffic: Conduct selective demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
 - 1. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

- G. Flame Cutting: Do not use cutting torches for removal until work area is cleared of flammable materials. At concealed spaces, flame cutting will not be allowed. Maintain portable fire suppression devices during flame-cutting operations.
- H. Utility Services: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
 - 1. Do not interrupt utilities serving occupied or used facilities or spaces, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner.
 - 2. Maintain fire protection services during selective demolition operations.
 - 3. Maintain HVAC functions in occupied spaces, in so far as possible. Provide temporary heating and ventilation as required to maintain acceptable working conditions. Do not interrupt functions to occupied spaces, except as shown on the demolition plans or when authorized in writing by the Owner.
- I. Environmental Controls: Use temporary enclosures, and other methods to limit dust and dirt migration. Comply with governing regulations pertaining to environmental protection.
 - 1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution, or damage to finishes or occupied spaces.
- J. Do not use highly odoriferous, hazardous or highly volatile chemicals during demolition without the approval of the Owner. Provide appropriate safeguards during the use of such approved materials.
- K. Lead Containing Materials: The existing building may contain lead-containing materials, including lead paint. It is the Contractor's responsibility to meet all governmental regulations when dealing with and disposing of lead containing materials.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 - 5. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 6. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
 - 7. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
 - 8. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.
 - 9. Provide for effective air and water pollution controls as required by local authorities having jurisdiction.
- B. Cover and protect furniture, equipment, and fixtures from soilage or damage when demolition work is performed in areas where such items have not been removed.
- C. Do not begin removal until receipt of notification to proceed from Owner, the Owner's Designated Representative or the Construction Manager.
- D. Do not begin removal until built elements to be salvaged or relocated have been removed.
- E. Do not begin removal until vegetation to be relocated has been removed and vegetation to remain has been protected from damage.
- F. Protect existing structures and other elements to remain in place and not removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.

- G. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- H. If hazardous materials are discovered during removal operations, stop work and notify General Contractor or Construction Manager and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury. Follow the following procedures:
 - 1. If the materials are not disturbed, stop work in the immediate area and notify the Owner/Construction Manager who will arrange for abatement of the material.
 - 2. If the material has been disturbed by demolition operation, or is otherwise loose or damaged, evacuate the immediate area and restrict access to all personnel. Shut off or isolate HVAC to the area. Notify the Owner/Construction Manager and do not re-enter space until abatement is complete and permission has been received.
 - 3. Rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.
- I. Locate, identify, stub off, and disconnect utility services that are not indicated to remain.
 - 1. Provide bypass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of 72 hours advance notice to Owner if shutdown of service is necessary during changeover.
- J. Perform demolition in a manner that maximizes salvage and recycling of materials.
 - 1. Dismantle existing construction and separate materials.
 - 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.02 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
 - 1. Verify construction and utility arrangements are as indicated.
 - 2. Report discrepancies to General Contractor or Construction Manager before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Perform selective demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.
- C. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain using power-driven masonry saw or hand tools.
- D. For interior slabs on grade, use removal methods that will not crack or structurally disturb adjacent slabs or partitions. Use power saw where possible.
- E. Prior to any floor slab cutting and removal, contractor to identify any and all underground mechanical and electrical items by means such as, but not limited to: X-ray, ground penetrating radar, tracing, etc. Any damage will be replaced at expense of Contractor. Contractor must give General Contractor or Construction Manager 48 hour notice prior to any floor slab cutting.
- F. Separate areas in which demolition is being conducted from areas that remain occupied.
 - 1. Erect and maintain dust-proof partitions and closures as required to prevent spread of dust or fumes to occupied portions of the building.
 - a. Where selective demolition occurs immediately adjacent to occupied portions of the building, construct dust-proof partitions of minimum 3-5/8" metal studs, 5/8-inch drywall (joints taped) on occupied side, 1/2-inch fire-retardant plywood on demolition side. Fill partition cavity with insulation. Provide lockable dustproof doors.
 - b. Provide similar weatherproof closures for exterior openings resulting from or immediately adjacent to demolition work.

- G. Remove existing work as indicated and required to accomplish new work.
 - 1. Carefully remove, clean and salvage items indicated on drawings.
 - a. Furniture/building contents, not scheduled for reuse, remain property of Owner. Notify Architect if such items are encountered and obtain approval regarding method of removal and salvage for the Owner.
 - b. Store salvaged items to be reused off the ground in a clean, dry location, away from uncured concrete or masonry. Cover with waterproof material in a manner that permits air circulation within covering.
 - c. For items to be reused, inventory, label with previous location and new location.
 - 2. Leave all surfaces and work ready and acceptable to the next trade. Use only materials and techniques that are acceptable to subsequent trades to remove materials from surfaces to remain.
 - a. Remove adhesive and other materials where wall and floor coverings are removed.
 - 3. Patch or repair demolition in excess of that shown on drawings.
- H. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extend of the conflict. Submit report to General Contractor or Construction Manager in written, accurate detail. Pending receipt of directive from Architect, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.
 - 1. Cease operations and notify Architect, General Contractor or Construction Manager immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
- I. Protect existing work to remain.
 - 1. Prevent movement of structure. Provide shoring and bracing as required.
 - 2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
 - a. Patch to match new work.

3.03 DEBRIS, WASTE REMOVAL AND CLEANUP

- A. Remove debris, junk, and trash from site.
- B. Remove and legally dispose of off site, all materials not to be reused on site; do not burn or bury.
- C. Remove protection when no longer required by demolition and remodeling work.
- D. Leave site in broom clean condition, ready for subsequent work.
- E. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 41 00

SECTION 04 20 00
NON-BEARING UNIT MASONRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Furnish and install concrete masonry units where shown on the drawings.
- B. Remove masonry as required to tooth-in new work when tothing-in is indicated on the drawings.
- C. Concrete block.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data:
 - 1. Provide data on concrete block and mortar.
- C. Submit information on masonry cleaning, including product data of cleaning agent(s), cleaning process, and cleaning schedule, including recommendations from brick manufacturers.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
- B. Store materials under cover in dry place; in manner to prevent damage, intrusion of foreign material. During freezing weather protect all masonry units with tarpaulins or other suitable material. Store concrete masonry under covers that will permit circulation of air, prevent excessive moisture absorption; protect against wetting prior to use.
- C. Handle and store pre-faced concrete block units in protective cartons or trays. Do not remove from protective packaging until ready for installation.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:
 - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches (400 by 200 mm) and nominal depths as indicated on drawings for specific locations.
 - 2. Load Bearing Units: ASTM C90, normal weight.
 - 3. Prism strength: As shown on drawings. If not shown, provide $f_m = 2,000$ psi (13789.5146 kp).
 - a. Compressive strength of individual masonry units shall be as shown for the respective prism strength.
 - 4. Non-Loadbearing Units: ASTM C129.
 - a. Hollow block.

2.02 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color sample.
- B. Hydrated Lime: ASTM C207
- C. Mortar Aggregate: ASTM C144.
- D. Grout Aggregate: ASTM C404.
- E. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.
 - 1. Color(s): To match Architect's sample(s) when incorporated into specified mix design(s).
 - 2. Manufacturers:
 - a. Davis Colors, a division of Venator Materials PLC; www.daviscolors.com.
 - b. Lambert Corporation; www.lambertusa.com.
 - c. Solomon Colors, Inc; www.solomoncolors.com.
 - d. Euclid Chemical; www.euclidchemical.com.
 - e. Prism Corporation; www.prismpigments.com.
 - f. TCC Materials; www.tccmaterials.com.
- F. Water: Clean, potable, free of deleterious amounts of acids, alkalines or organic materials.

- G. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
 - 1. Color: Standard gray
- H. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.
 - 1. Type: Fine

2.03 ACCESSORIES

- A. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials and as recommended by masonry manufacturers.

2.04 MORTAR AND GROUT MIXING

- A. Mortar for Unit Masonry: ASTM C270, using the Property Specification.
 - 1. Exterior, loadbearing masonry: Type N.
 - 2. Component proportions by mortar type are as follows:

<u>Mortar Type</u>	<u>Portland Cement</u>	<u>Hydrated Lime</u>	<u>Aggregate</u>
M	1 part	1/4	See Below
S	1 part	1/4 to 1/2 part	See Below
N	1 part	1/2 to 1 1/4 parts	See Below

- a. Volume of aggregate measured in a loose, damp condition shall be not less than 2 ¼ times and not more than 3 times the sum of the volumes of cement and lime used.
 - b. Accurately maintain and control the proportions of the mortar materials during the entire progress of the work.
 - c. Mix mortar as required for immediate use only and discard any mixed for a period exceeding 2 ½ hours.
 - d. Thoroughly mix cementitious materials and aggregates with the amount of water to produce satisfactory workability. Machine mix all mortar.
- B. Grout: ASTM C476; consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches (50 mm) or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches (50 mm).
 - 1. Proportion field mixed grout by volume and add sufficient water to produce consistency for pouring without segregation. Compose grout by volume of one part Portland cement, up to one-tenth part by volume hydrated lime or lime putty, and sand two and one-fourth to three times the sum of the volumes of the cementitious materials. Achieve grout slump of 8 inch (203.2 mm) to 9 inch (228.6 mm). Attain a minimum compressive strength of 3,000 pounds per square inch (20684.2719 kPa) at 28 days.
 - 2. Admixtures: Add to mixture at manufacturer's recommended rate and in accordance with manufacturer's instructions; mix uniformly.
 - 3. Antifreeze Compounds: Not allowed in mortar to lower freezing point.
 - 4. Mixing: Use mechanical batch mixer and comply with referenced standards.

2.05 MORTAR SOURCE QUALITY CONTROL

- A. Test proposed aggregate for conformance to ASTM C144 and these specifications.
- B. Test each mortar mix design for water retentivity and compressive strength in accordance with ASTM C270.
- C. Mix mortar in the laboratory from representative samples of materials to be used in the Work, including selected colorants. Average compressive strength at 28 days shall be as follows:

<u>Mortar Type</u>	<u>Compressive Strength Range</u>
M	2,500 - 3,000 psi (17236.8932-20684.2719 kPa)
S	1,800 - 2,200 psi (12410.5631-15168.466 kPa)
N	750 - 1,100 psi (5171.068-7584.233 kPa)

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.

3.03 COLD AND HOT WEATHER REQUIREMENTS

A. Cold Weather Requirements

- 1. Cold weather conditions exist when temperature is 40 degrees F (4.44 C) or below.
- 2. Keep masonry units dry. Do not use wet or frozen masonry units.
- 3. Following general rules may be modified as approved by Architect to suit project conditions.

AIR TEMP.

(Degrees)

CONSTRUCTION REQUIREMENTS

40 - 32 F (4.44-0 C) Heat mixing water or sand to produce mortar temperature between 40 degrees F (4.44 C) and 120 degrees F (48.89 C). Heat grout materials when their temperatures are below 32 degrees F (0 C). Do not heat water or aggregates used in mortar or grout above 140 degrees F (60 C).

32 - 25 F (0 to -3.89 C) Comply with construction requirements above. Heat grout materials so grout is at a temperature between 70 and 120 degrees F (21.11-48.89 C). during mixing and placed at a temperature above 70 degrees F (21.11 C). Maintain temperature of mortar on boards above 40 degrees F (4.44 C). Employ windbreaks when wind is in excess of 15 MPH.

25 - 20 F (-3.89 to -6.67 C) Comply with construction requirements above. Heat masonry units so their temperature when laid is not less than 20 degrees F (-6.67 C). Heat masonry to a minimum of 40 degrees F (4.44 C) prior to grouting. Utilize sources of heat on both sides of wall under construction.

20 F (-6.67 C) and below Comply with construction requirements above. Provide enclosure and auxiliary heat to maintain air temperature above 32 degrees F (0 C) for 24 hours. Extend time period to 48 hours for grouted masonry.

MEAN DAILY AIR

TEMPERATURE

PROTECTION REQUIREMENTS

40 - 32 F (4.44-0 C)

Protect masonry from rain or snow for 24 hours.

32 - 25 F (0 to -3.89 C)

Completely cover masonry for 24 hours.

25 - 20 F (-3.89 to -6.67 C)

Completely cover masonry with insulating blankets or approved equal protection for 24 hours. Extend time period to 48 hours for grouted masonry.

20 F (-6.67 C) and below

Maintain masonry temperature above 32 degrees F (0 C) for 24 hours by enclosure and approved supplementary heat. Extend time period to 48 hours for grouted masonry.

B. Hot Weather Requirements

AIR TEMP

(Degrees)

PROTECTION REQUIREMENTS

Greater than 110 F
or 90 F

Maintain the temperature of mortar and grout below 120°F; flush (43.33 C) mixers, mortar transport containers and mortar boards with cool water

(32.22 C) with 8 mph
(214.58 m/min)

before they come into contact with mortar ingredients or mortar;
maintain mortar consistency by re-tempering with cool water;

wind velocity

and use mortar within 2 hrs.

- C. Protect facing material against staining; keep top of walls covered with non-staining waterproof coverings when work is not in progress.
- D. Where fresh masonry joins partially or totally set masonry, clean, roughen, lightly wet set masonry before new masonry is joined. Make necessary horizontal stop-offs by racking back masonry; do not tooth.
- E. Where units are specified to be wetted, uniformly wet units 3 to 4 hours before using.

3.04 COURSING

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Unless noted on Drawings as "clear", all dimensions on Drawings are modular, from center to center of vertical joints and from bottom to bottom of horizontal joints.
- D. Lay out exposed masonry to achieve joint pattern shown on Drawings. Where not shown, lay out exposed masonry to minimize cutting of units. Where possible, provide full 8 inch (203.2 mm) wide units at outside corners, jambs, and other openings.
- E. Concrete Masonry Units:
 - 1. Bond: Running. Scored block to have stack bond appearance.
 - 2. Coursing: One unit and one mortar joint to equal 8 inches (200 mm).
 - 3. Mortar Joints: Concave.
 - a. Rake joints of glazed concrete block back a minimum of 3/8 inch (9.525 mm) for application of pointing mortar.

3.05 PLACING AND BONDING-CONCRETE BLOCK

- A. Concrete masonry erection, workmanship: Conform to requirements of ACI 530.1.
- B. Do not wet concrete masonry units.
- C. Units with open cells exposed in wall will not be permitted.
- D. Lay masonry plumb, true to lines. Unless noted on drawings as "clear", all dimensions on drawings are modular, from center to center of vertical joints and from bottom to bottom of horizontal joints.
- E. Avoid over-plumbing, pounding of corner, jambs after setting masonry in position. Where an adjustment must be made after mortar has started to harden, remove mortar, replace with fresh mortar.
- F. Lay masonry within one minute of placing mortar.
- G. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- H. Remove excess mortar and mortar smears as work progresses.
- I. Interlock intersections and external corners, except for units laid in stack bond.
- J. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- K. Cut mortar joints flush where wall tile is scheduled.
- L. Isolate masonry partitions from vertical structural framing members with a control joint.
- M. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with mineral wool and acoustic spray system to create an expansion/contraction joint. Apply mineral wool and acoustic spray to required thickness and overlap onto adjacent surfaces as recommended by manufacturer to achieve specified sound transmission classification.
- N. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

3.06 REPAIR, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged, or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar (color to match adjoining units), pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

3.07 CLEANING

- A. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove excess mortar and mortar droppings.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 - a. Use non-metallic tools in cleaning operations.

- b. Protect adjacent non-masonry surfaces from contact with cleaning agent, despite the type of clean agent used, by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
 - c. Wet wall surfaces with water before applying cleaning agent; remove cleaning agent promptly by rinsing surfaces thoroughly with clear water.
 - d. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes #20.
 - e. Repeated gentle washings with gentle cleaning agents is preferred to fewer washings with more abrasive or chemical-laden cleaning agents.
 - f. Do not use hydrochloric acid (muriatic acid) except in limited applications where other alternatives have been tried and are not successful. If needed, and if accepted by the Architect, clean masonry with a proprietary acidic cleaning agent applied according to manufacturer's written instructions.
 - g. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A, applicable to type of stain on exposed surfaces.
- B. Schedule and complete masonry cleaning as soon as possible, coordinating with other trades and installations.

END OF SECTION 04 20 00

SECTION 05 50 00
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section includes: All labor, material necessary to complete all items of miscellaneous metal as listed on the schedule in Part 2 and shown on the Drawings.
- B. The design, fabrication, transportation to the project site, and associated operations required to complete miscellaneous metals, including all the various metal items manufactured to more or less standard details in sizes conforming to specific requirements of the project.
- C. Shop fabricated steel, aluminum, and galvanized and stainless steel items.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 - 2. Design data: Submit drawings and supporting calculations, signed and sealed by a licensed professional structural engineer (PE) in the State the project is located.
 - a. Metal railings, stairs, catwalks, ladders, and other items specified in this section shall be designed to resist self-weight and the more stringent of:
 - 1) Superimposed Dead and Live Loads indicated on the Contract Documents, and
 - 2) Loads set forth by the governing Building Code.
 - b. The maximum Live Load deflection shall be L/360. Deflection determined based on structural section(s) alone
 - 3. Coordinate work with other suppliers and subcontractors; obtain their approved shop drawing where necessary, or obtain any necessary additional detail information regarding mounting conditions or other aspects of related work.

1.03 QUALITY ASSURANCE

- A. Design under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

- A. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- B. Plates: ASTM A283/A283M.
- C. Stainless Steel, General: ASTM A666, Type 304 or 302.
- D. Stainless Steel Tubing: ASTM A554, Type 304, 16 gauge, 0.0625 inch (1.59 mm) minimum metal thickness, 1-1/2 inch (38 mm) diameter.
- E. Stainless Steel Bars, Shapes and Moldings: ASTM A276/A276M, Type 304.
- F. Slotted Channel Fittings: ASTM A1011/A1011M.
- G. Mechanical Fasteners: Same material as or compatible with materials being fastened; type consistent with design and specified quality level.
- H. Expansion and Adhesive Anchors:
 - 1. Wedge Anchors: Hilti "Kwik Bolt II" or Ramset/Redhead "Trubolt" or equal.
 - 2. Heavy Duty Sleeve Anchors: Hilti "HSL" or equal.
 - 3. Adhesive Anchors: Hilti "HVA" or "HIT", Ramset/Redhead "EPCON" or equal.
- I. Bolts, Nuts, and Washers: Appropriate for the materials being connected.
- J. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- K. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
- L. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 MATERIALS - ALUMINUM

- A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.
- B. Sheet Aluminum: ASTM B209/B209M, 5052 alloy, H32 or H22 temper.
- C. Bolts, Nuts, and Washers: Stainless steel.
- D. Welding Materials: AWS D1.2/D1.2M; type required for materials being welded.

2.03 FABRICATION

- A. Take field measurements before fabrication when required.
- B. Fit and shop assemble items in largest practical sections, for delivery to site.
- C. Fabricate items with joints tightly fitted and secured.
- D. Continuously seal joined members exposed in the work by continuous welds and grinding smooth.
- E. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- F. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- G. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- H. In all areas of exposed steel that is to receive a finish:
 - 1. Piece marks hidden: Fabricate such that piece marks are fully hidden in the final structure or made with such media to permit full removal after erection.
 - 2. Mill mark removal: Deliver steel with no mill marks (stenciled, stamped, raised, etc) in exposed locations. Omit mill marks by cutting of mill material to appropriate lengths where possible. Where not possible, fill and/or grind to a surface finish consistent with the adjacent material.

2.04 SCHEDULE OF FABRICATED ITEMS

- A. Items listed in this Section are intended only as a guide, but do not relieve responsibility for verifying quantities and inclusion of all similar items. Thoroughly examine all Drawings for items of miscellaneous metal fabrications.
- B. Other miscellaneous metal items shown on drawings.

2.05 FINISHES - STEEL

- A. Prime paint steel items.
 - 1. Exceptions: Galvanize items to be embedded in concrete and items to be embedded in masonry.
 - 2. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
 - 3. Do not paint aluminum or stainless steel items, unless specifically called for on the drawings.
- B. Prepare surfaces in non-public areas to be primed in accordance with SSPC-SP2.
- C. Prepare surfaces in public areas to be primed in accordance with SSPC-SP6.
- D. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- E. Prime Painting: One coat.
- F. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements for all steel items exposed to weather.
- G. Slotted Channel Framing: ASTM A653/A653M, Grade 33.
- H. Stainless Steel Finish: #4 Satin, ASTM A167.

2.06 FINISHES - ALUMINUM

- A. Interior Aluminum Surfaces: Class I natural anodized.
- B. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils (0.018 mm) thick.
- C. Apply one coat of bituminous paint to concealed aluminum surfaces in contact with cementitious or dissimilar materials.

2.07 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch (3 mm) maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch (1.5 mm).
- C. Maximum Misalignment of Adjacent Members: 1/16 inch (1.5 mm).

- D. Maximum Bow: 1/8 inch (3 mm) in 48 inches (1.2 m).
- E. Maximum Deviation From Plane: 1/16 inch (1.5 mm) in 48 inches (1.2 m).

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Furnish setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components as indicated on shop drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
 - 1. Continuously weld field splices and grind smooth where exposed to view.
 - 2. Fill exposed splice joints with body filler and sand smooth
- E. Obtain approval prior to site cutting or making adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed , except surfaces to be in contact with concrete.
- G. After erection, touch-up damaged hot dipped galvanizing.

3.04 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch (6 mm) per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch (6 mm).
- C. Maximum Out-of-Position: 1/4 inch (6 mm).

END OF SECTION 05 50 00

SECTION 06 10 53
ROUGH CARPENTRY-WOOD BLOCKING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Miscellaneous blocking, sleepers and nailers, shown on Drawings or required.
- B. Curbs and blocking at roof. Wood blocking under coping and back sides of the parapet.
- C. Concealed wood blocking, nailers, and supports.
- D. Miscellaneous wood nailers, furring, and grounds.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide technical data on fire retardant treated lumber.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. Species: Douglas Fir-Larch, Hem-Fir, or Southern Pine.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
 - 3. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Provide fire-retardant lumber for all interior and exterior framing and blocking.
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Blocking for sizes 2 by 2 through 2 by 6 (50 by 50 mm through 50 by 150 mm):
 - 1. Species: Douglas Fir-Larch, Hem-Fir or Southern Pine.
 - 2. Grade: No.2.
- E. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 - 1. Lumber: S4S, No.2 or Standard Grade.

2.03 ACCESSORIES

- A. Fasteners and Anchors:
 - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
 - 2. Anchors: Toggle bolt type for anchorage to hollow masonry.
- B. Die-Stamped Connectors: Hot dipped galvanized steel, sized to suit framing conditions.
- C. Construction Adhesives: Adhesives complying with ASTM C557 or ASTM D3498.

2.04 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 - 1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
 - 2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

B. Preservative Treatment:

1. Preservative Pressure Treatment of Lumber Above Grade: AWP A U1, Use Category UC3B, Commodity Specification A, using waterborne preservative to 0.10 lb/cu ft retention (to 1.6 kg/cu m retention).
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber exposed to weather.
 - c. Treat lumber in contact with roofing, flashing, or waterproofing (Note: treated blocking is not required when covered with roofing material, peel and stick type flashing and weather barrier).
 - d. Treat lumber in contact with masonry or concrete.
2. Preservative Pressure Treatment of Plywood Above Grade: AWP A U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative to 0.25 lb/cu ft retention (to 4.0 kg/cu m retention).
 - a. Kiln dry plywood after treatment to maximum moisture content of 19 percent.
 - b. Treat plywood in contact with roofing, flashing, or waterproofing (Note: treated blocking is not required when covered with roofing material, peel and stick type flashing or weather barrier).
 - c. Treat plywood in contact with masonry or concrete.
 - d. Treat plywood in other locations as indicated.

PART 3 EXECUTION

3.01 PREPARATION

- A. Coordinate installation of rough carpentry members specified in other sections (obtain product data, sizes and anchorage requirements from other trades prior to installation) including, but not limited to:
 1. Roofing applications as specified in Divisions 7, 22 and 23.

3.02 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

3.04 ROOF-RELATED CARPENTRY

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.
- B. Provide wood curb at roof openings except where prefabricated curbs are specified and where specifically indicated otherwise. Form corners by alternating lapping side members.

3.05 CLEANING

- A. Waste Disposal:
 1. Comply with applicable regulations.
 2. Do not burn scrap on project site.
 3. Do not burn scraps that have been pressure treated.
 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.
- B. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION 06 10 53

SECTION 07 21 00
INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Roof insulation (base and tapered) for flat roofs, installed in two layers with staggered seams to create a vapor barrier.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on product characteristics, performance criteria, and product limitations for all specified products.
 - 1. For vapor barriers specifically provide:
 - a. Manufacturer's product samples and literature.
 - b. Manufacturer's installation instructions for placement, seaming and pipe boot installation.

1.03 FIELD CONDITIONS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.
- B. Deliver material to the site in unopened packages, with identification labels intact.
- C. Store under water-resistant cover and protect from weather and direct sunlight.
- D. Remove damaged materials from site.

PART 2 PRODUCTS

2.01 FOAM BOARD INSULATION MATERIALS

- A. Roof Insulation (Base and Tapered): Polyisocyanurate (ISO) Board Insulation with Facers Both Sides: Rigid cellular foam, complying with ASTM C1289. Installed in a minimum of two staggered layers to create a vapor barrier.
 - 1. Classifications:
 - a. Type II: Class 1-Faced with glass fiber mat facers on both major surfaces of the core foam.
 - 1) Class 1 - Faced with glass fiber reinforced cellulosic facers on both major surfaces of core foam.
 - 2) Compressive Strength: Classes 1-2-3, Grade 1 - 16 psi (110 kPa), minimum.
 - 3) Thermal Resistance, R-value (RSI-value): At 1-1/2 inch (38.1 mm) thick; Class 1, Grades 1-2-3 - 8.4 (1.48), minimum, at 75 degrees F (24 degrees C).
 - 2. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
 - 3. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
 - 4. Board Edges: Square.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation/products.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 INSTALLATION-GENERAL

- A. Install in accordance with manufacturer's instructions.
- B. Install without gaps or voids. Do not compress insulation.
- C. Fit insulation tight to exterior side of mechanical and electrical services within plane of insulation.
- D. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- E. Ensure overall installation presents flush, level surface.

3.03 BOARD INSTALLATION OVER ROOF DECKS

- A. Refer to roofing specifications for installation.

3.04 PROTECTION

- A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION 07 21 00

SECTION 07 31 13
ASPHALT SHINGLES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Asphalt shingle roofing.
- B. Flexible sheet membranes for eave protection, underlayment, and valley protection.
- C. Metal flashing.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating material characteristics, performance criteria, limitations.
- C. Samples: Submit two samples of each shingle color indicating color range and finish texture/pattern ; for color selection.
- D. Warranty Documentation: Submit a sample warranty.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Shingles: 100 sq ft (9.29 sq m) of each type and color.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store materials with labels intact in manufacturer's unopened packaging until ready for installation.
- B. Store materials under dry and waterproof cover, well ventilated, and elevated above grade on a flat surface.
- C. Protect materials from harmful environmental elements, construction dust, direct sunlight, and other potentially detrimental conditions.
- D. When storing roofing materials on roofing system ensure that no damage occurs to supporting members and other materials.

1.04 FIELD CONDITIONS

- A. Do not install shingles, eave protection membrane, underlayment or when surface, ambient air, wind chill or temperatures are below 45 degrees F (7 degrees C).

1.05 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Provide 10 year manufacturer's warranty for coverage against black streaks caused by algae.
- C. Provide 15-year manufacturer's warranty for wind damage.
- D. Manufacturer's 50 year warranty on manufacturing defects: 100% Coverage for materials and labor for first 20 years and prorated thereafter.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Asphalt Shingles:
 - 1. GAF; Timberline UHD Shingles: www.gaf.com.
 - 2. Owens Corning Corp; Duration Storm: www.owenscorning.com.

2.02 ASPHALT SHINGLES

- A. Asphalt Shingles: Asphalt-coated glass felt, mineral granule surfaced, complying with ASTM D3462/D3462M.
 - 1. GAF; Timberline Ultra HD Shingles with StainGuard Plus: www.gaf.com.
 - 2. Owens Corning Corp; Duration Storm: www.owenscorning.com
 - a. Fire Resistance: Class A, complying with ASTM E108.
 - b. Wind Resistance: Class A, when tested in accordance with ASTM D3161/D3161M.
 - c. Fire or Wind Resistance Criteria: Provide UL (DIR) listed and labeled products.
 - d. Warranted Wind Speed: Not greater than 60 mph (97 km/h).
 - e. Algae resistant.
 - f. Self-sealing type.
 - g. Style: Square.
 - h. Color: As selected by Architect.
 - i. Ridge Cap Shingle: Manufacturer's standard to match shingles and maintain warranty.

2.03 SHEET MATERIALS

- A. Underlayment: #30, Asphalt-saturated organic roofing felt, unperforated, complying with ASTM D226/D226M.
- B. Flexible Flashing: Self-adhering polymer-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil (1 mm) total thickness; with strippable treated release paper and polyethylene sheet top surface.

2.04 ACCESSORIES

- A. Roofing Nails: Standard round wire shingle type, galvanized steel, stainless steel, aluminum roofing nails, or copper roofing nails, minimum 3/8-inch (9.5 mm) head diameter, 12-gauge, 0.109-inch (2.77 mm) nail shank diameter, 1-1/2 inches (38 mm) long and complying with ASTM F1667/F1667M.
- B. Asphalt Roof Cement: ASTM D4586/D4586M, asbestos-free.
- C. Lap Cement: Fibrated cutback asphalt type, recommended for use in application of underlayment, free of toxic solvents.
- D. Roof and Nailable roof insulation: Refer to Section 07 21 00 Insulation for products to be used.

2.05 METAL FLASHINGS

- A. Steel Sheet Metal: Prefinished and galvanized steel sheet, 26 gauge, 0.0179 inch (0.45 mm) minimum thickness, G90/Z275 hot-dipped galvanized.
 - 1. Color: Match existing.
- B. Metal Drip Edge: Brake-formed sheet metal with at least a 2-inch roof deck flange and a 1-1/2-inch fascia flange with a 3/8-inch drip at lower edge. Furnish the following material in lengths of 8 or 10 feet.
 - 1. Material: Aluminum sheets. Color: Match existing.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions prior to starting this work.
- B. Verify that roof deck is of sufficient thickness to accept fasteners.
- C. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.
- D. Verify roof openings are correctly framed.
- E. Verify deck surfaces are dry, free of ridges, warps, or voids.

3.02 PREPARATION

- A. Seal roof deck joints wider than 1/16 inch (1.5 mm) as recommended by shingle manufacturer.
- B. At areas where eave and valley protection membrane is to be adhered to substrate, fill knot holes and surface cracks with latex filler.
- C. Broom clean deck surfaces before installing underlayment or eave protection.
- D. Install eave edge flashings tight with fascia boards, weather lap joints 2 inches (50 mm) and seal with plastic cement, and secure flange with nails.

3.03 INSTALLATION

- A. Underlayment:
 - 1. Roof Slopes Up to 4:12: Install a layer of eave protection membrane on entire roof.
 - 2. Roof Slopes Greater Than 4:12: Install underlayment perpendicular to slope of roof, with ends and edges weather lapped minimum 4 inches (100 mm); stagger end laps of each consecutive layer, nail in place, and weather lap minimum 4 inches (100 mm) over eave protection.
 - 3. Weather lap and seal watertight with plastic cement any items projecting through or mounted on roof.
- B. Metal Flashing:
 - 1. Install flashings in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
 - 2. Weather lap joints minimum 2 inches (50 mm) and seal weather tight with plastic cement.
 - 3. Secure in place with nails on center, and conceal fastenings.
 - 4. Items Projecting Through or Mounted on Roofing: Flash and seal weather tight with plastic cement.

C. Shingles:

1. Install shingles in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
 - a. Fasten individual shingles using two nails per shingle, or as required by manufacturer and local building code, whichever is greater.
 - b. Fasten strip shingles using four nails per strip, or as required by manufacturer and local building code, whichever is greater.
2. Place shingles in straight coursing pattern with 5-inch (125 mm) weather exposure to produce double thickness over full roof area, and provide double course of shingles at eaves.
3. Project first course of shingles 3/4 inch (19 mm) beyond fascia boards.
4. Extend shingles 1/2 inch (13 mm) beyond face of gable edge fascia boards.
5. Complete installation to provide weathertight service.

3.04 PROTECTION

- A. Notify the General Contractor that traffic over finished roof surface is not permitted.
- B. Touch-up, repair, or replace damaged asphalt shingles or accessories before Date of Substantial Completion.

END OF SECTION 07 31 13

SECTION 07 53 00
EPDM MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. EPDM fully adhered roofing system.
- B. Re-roof projects:
 - 1. Removal of existing coping, wood curbing as shown on drawings, cants, built-up roofing system and insulation down to existing deck.
 - 2. Raising of mechanical equipment and curbs. Adjusting heights of roof drains, if required. Extension of plumbing vents through roof, if required. Removal and re-hook of mechanical equipment as necessary.
 - 3. Clean-up and re-sodding of any damaged lawns.
- C. Insulation, flat tapered
- D. Thermal barrier.
- E. Cover boards.

1.02 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meeting: Convene a pre-installation meeting one week before starting work of this section; require attendance by all affected installers; review preparation and installation procedures and coordination and scheduling necessary for related work.
 - 1. Attendance is mandatory for roofing contractor, roofing foreman, roofing manufacturer's representative, Architect's representative, Owner's representative, sheet metal subcontractor, carpentry subcontractor and anyone else responsible for items penetrating or in contact with the roof.
 - 2. Agenda:
 - a. Review in detail Architect's specifications, roof plans and all roof flashing details and sheathing materials for the back side of the parapet.
 - b. If a manufacturer's specification is used, review and resolve all deviations or differences from Architect's specifications.
 - c. If Factory Mutual or Underwriters Laboratories requirements are part of specification, review and understand these requirements, and resolve all conflicts between the FM or UL specifications and Architect's/manufacturer's specifications.
 - d. Review roof plans; for slope, deck type, drainage, membrane attachment, expansion joints flashing and details. Resolve all conflicts between what is considered good roofing practice and specifications.
 - e. Review proposed roofing system and recommended work practices for its installation.
 - f. Study all plans to determine whether different roof areas have different requirements.
 - g. Designate which areas on site will be available for use as storage and working areas.
 - h. Review procedure to be followed to provide proper protection of roof system during and after construction of roof.
 - i. On occupied structures, review means and methods to be utilized to maintain structure weather tight during reroofing.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings:
 - 1. Document the following information on plans through coordination with other trades and field verification:
 - 2. Camber of roof structure.
 - 3. Roof structure slope and elevations of deck.
 - 4. Location of roof and overflow drains.
 - 5. Elevations of overflow scuppers relative to roof deck.
 - 6. Indicate potential drainage problem areas due to insulation layout, camber, slope of deck and roof/overflow drain locations.

7. Plans indicating roof size, location and type of penetrations, roof insulation make-up and layout indicating slopes and crickets and coordination/field verification information.
 8. Base flashings and membrane terminations.
 9. Penetration details.
 10. If deviations or modifications to indicated details are necessary or desired, clearly indicate for architects review.
 11. If there are no items submitted, it will be assumed that all the details on the drawings are acceptable for the warranty and to install the roofing. RFI's will be rejected once construction starts.
- C. Samples: If insulation manufacturer is different than roofing manufacturer, submit sample insulation together with manufacturer's written acceptance.
 - D. Submit test documentation (UL 1256 or NFPA 276) if the thermal barrier is proposed to be deleted. Note there is no test for acoustical decks, so a thermal barrier will be required for those applications.
 - E. Manufacturer's approval of the installing contractor.
 - F. Warranty: Submit manufacturer's sample warranty.

1.04 QUALITY ASSURANCE

- A. Installer: Currently approved, in writing, by manufacturer of system prior to awarding of roofing contract.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact.
- B. Store materials in weather protected environment, clear of ground and moisture.
- C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.
- D. Protect foam insulation from direct exposure to sunlight.

1.06 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- D. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Provide a No Dollar Limit Warranty (NDL), from manufacturer; warranty to run from date of substantial completion.
- C. Duration: 20 year

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. System by Johns Manville, www.jm.com is specified.
- B. Equivalent systems by the following manufacturers are acceptable:
 1. Carlisle Roofing Systems, Inc: www.carlisle-syntec.com.
 2. Elevate: www.holcimelevate.com.
 3. GenFlex: www.genflex.com.
 4. Versico Roofing Systems: www.versico.com.
- C. Other companies who manufacture their own membranes may submit for prior approval.

2.02 ASSOCIATED MATERIALS

- A. Seaming Materials: As recommended by membrane manufacturer.
- B. Membrane Fasteners: As recommended by and approved by membrane manufacturer.
- C. Vapor Retarders: Use one of the following, depending on the roof deck substrate:
 1. Self adhering, tri-laminate woven polyethylene, non slip, UV protected top surface:
 - a. [JM Vapor Barrier SA](http://www.jm.com); www.jm.com.
- D. Flexible Flashing Material: Same material as membrane.

2.03 COVER BOARDS

- A. Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M.
 - 1. Thickness: 1/2 inch (12.7 mm), fire-resistant.
 - 2. Products:
 - a. Georgia-Pacific; DensDeck Prime with EONIC Technology: www.densdeck.com.
 - b. USG Corporation; Securock Ultralight Glass-Mat Roof Board: www.usg.com.

2.04 ACCESSORIES

- A. Roofing Expansion Joint Flashing: Sheet butyl.
- B. Roofing expansion joint insulation: Exterior Batt Insulation as specified in Section 07 21 00, Insulation.
- C. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
- D. Membrane Adhesive: As recommended by membrane manufacturer.
- E. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.
- F. Roofing Nails: Galvanized, hot-dipped type, size and configuration as required to suit application.
- G. Strip Reglet Devices: Galvanized steel, maximum possible lengths per location, with attachment flanges.
- H. Sealants: As recommended by membrane manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and are in place.

3.02 PREPARATION - WOOD DECK

- A. Verify flatness and tightness of joints in wood decking; fill knot holes with latex filler.
- B. Confirm dry deck by moisture meter with 12 percent moisture maximum.

3.03 INSTALLATION - VAPOR RETARDER AND INSULATION, UNDER MEMBRANE

- A. 6 mil virgin polyethylene:
 - 1. Lap joints minimum of 6" inches and seal all seams with seam tape.
- B. Self-adhering Vapor Retarder:
 - 1. Install per manufacturer's instructions.
- C. Extend vapor retarder under cant strips and blocking.
- D. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- E. Attachment of Insulation:
 - 1. Embed layers of insulation into full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.
- F. Attachment of Insulation:
 - 1. Embed layer of insulation in full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.
- G. Cover Boards: Mechanically fasten or adhere cover boards in accordance with roofing manufacturer's instructions and FM (AG) Factory Mutual requirements.
- H. Lay and adhere subsequent layers of insulation with joints staggered minimum 6 inches (152 mm) from joints of preceding layer.
- I. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
- J. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- K. Do not apply more insulation than can be covered with membrane in same day.

3.04 INSTALLATION - MEMBRANE

- A. Install elastomeric membrane roofing system in accordance with manufacturer's recommendations and NRCA (WM) applicable requirements.

- B. At gravel stops, extend membrane under gravel stop and to the outside face of the wall.
- C. Around roof penetrations, seal flanges and flashings with flexible flashing.
- D. Install roofing expansion joints where indicated. Make joints watertight.
- E. Coordinate installation of roof drains and sumps and related flashings.

3.05 CLEANING

- A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.
- B. Remove bituminous markings from finished surfaces.
- C. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.
- D. Repair or replace defaced or damaged finishes caused by work of this section.

3.06 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION 07 53 00

SECTION 07 62 00
SHEET METAL COPING AND FLASHING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sheet metal coping (pre-fabricated coping or ANSI-SPRI ES-1 approved contractor fabricated coping) , flashing and counterflashing as shown on drawings.
- B. Sheet metal gutters and downspouts.
- C. Flexible flashing/underlayment under all metal.
- D. Sealants for joints within sheet metal fabrications.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details. Indicate locations of pre-finished metal (if there is only one color for the entire project, this item is not required).
 - 1. If there are no items submitted, it will be assumed that all the details on the drawings are acceptable for all conditions on site to install a leak free system. RFI's will be rejected once construction starts.
- C. Samples: Submit 2 samples in size illustrating metal finish color.
- D. For Contractor fabricated ANSI/SPRI ES-1 coping and /or fascia submit documentation that contractor has a NRCA authorized fabricator agreement for NRCA's UL Certification for ANSI/SPRI ES-1.

1.03 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Metal Flashing and Trim:
 - 1. Products by Elevate: www.holcimelevate.com are specified.
 - 2. Equivalent products by other manufacturers with matching colors are acceptable.

2.02 SHEET MATERIALS

- A. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 22 gauge, 1/32 inch (0.7 mm) thick base metal.
- B. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24-gauge, 0.0239-inch (0.61 mm) thick base metal, shop pre-coated with PVDF coating.

2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18-inch (450 mm) long legs; seam for rigidity, seal with sealant.
- F. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing gravel. Return and brake edges.

2.04 ANSI/SPRI ES-1 FABRICATION

- A. Pre-fabricated Copings:
 - 1. If contractor can demonstrate that fabricated copings/fascias meet the requirements of ANSI/SPRI ES-1, pre-fabricated copings are not required]
 - 2. Coping: Firestone Building Products – UNA-Edge Coping System. Other manufacturers meeting specified requirements are acceptable, subject to approval of color and warranty.

3. Meet ANSI / SPRI ES-1 wind design standards for conformance to requirements of International Building Code. Note: For Contractor fabricated coping, provide documentation that contractor has a NRCA authorized fabricator agreement for NRCA's UL Certification for ANSI/SPRI ES-1.
 4. Materials
 5. Coping cover shall be 24 gauge galvanized with Kynar 500 finish.
 6. Accessories to include stainless steel anchor chips, concealed splice plates, coping cleats, and corrosion resistant fasteners / neoprene washers. Factory fabricated corners, end caps, frees, scuppers and sups with "quick lock" or welded seams.
 7. Provide factory fabricated special sizes, shapes, as required / detailed.
- B. Pre-Fabricated Fascia:
1. If contractor can demonstrate that fabricated openings/fascias meet the requirements of ANSI/SPRI ES-1, pre-fabricated copings are not required.
 2. Fascia: Firestone Building Products: UNA-Edge gravel stop system. Other manufacturers meeting specified requirements are acceptable, subject to approval of color and warranty.
 - a. Meet ANSI/SPRI ES-1 wind design standards for conformance to requirements of International Building Code. Note: For Contractor fabricated coping, provide documentation that contractor has a NRCA authorized fabricator agreement for NRCA's UL Certification for ANSI/SPRI ES-1.
 - b. Fascia cover shall be 24 gauge galvanized with Kynar 500 finish.
 - c. Accessories to include extruded aluminum anchor bar, anchor bar splice plates, closed cell compression gaskets, and corrosion resistant fasteners.
 - d. Sizes as detailed.

2.05 GUTTER AND DOWNSPOUT FABRICATION

- A. Gutters: SMACNA (ASMM) Rectangular profile.
- B. Downspouts: Rectangular profile.
- C. Gutters and Downspouts: Size indicated.
- D. Accessories: Profiled to suit gutters and downspouts.
 1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
- E. Seal metal joints.

2.06 SOFFIT PANELS

2.07 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Flexible Flashings/Underlayment under metal: Grace Ice and Water Shield; www.gcpat.com or equal.
 1. 40 mil rubberized asphalt adhesive backed by high density cross laminated polyethylene.
 2. Tensile Strength: 250 psi per ASTM D412 (Die C Modified).
 3. Elongation: 250% per ASTM D412 (Die C Modified).
- C. Primer Type: Zinc chromate.
- D. Protective Backing Paint: Zinc molybdate alkyd.
- E. Concealed Sealants: Non-curing butyl sealant.
- F. Exposed Sealants: ASTM C920; elastomeric silicone polymer sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- G. Plastic Cement: ASTM D4586/D4586M, Type I.
- H. Solder: ASTM B32; Sn50 (50/50) type.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch (0.38 mm).

3.03 INSTALLATION

- A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..
- B. Apply plastic cement compound between metal flashings and felt flashings.
- C. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- D. Secure gutters and downspouts in place with concealed fasteners.
- E. Slope gutters 1/4 inch per 10 feet (2.1 mm per m), minimum.

END OF SECTION 07 62 00

SECTION 07 92 00
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Non-sag gunnable joint sealants.
 - 1. Exterior applications
 - a. Joints in masonry, including architectural precast.
 - b. Miscellaneous joints where “sealant” or “caulk/caulking” is indicated on drawings.
 - c. Joints around mechanical, electrical and architectural penetrations of exterior masonry skin.
 - d. Removal and replacement of existing sealants.
 - 2. Interior applications
 - a. Note: Sealant on materials to be painted will be installed after painting is completed and shall match paint color. A “sacrificial” backer rod shall be installed prior to painting to protect joints from paint over spray. This backer rod may be pushed into the joint or removed prior to installation of final backer rod and sealant.
 - b. Interior joints in masonry.
 - c. Miscellaneous joints where “sealants” or “caulk/caulking” is indicated on Drawings.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, which includes the following.
 - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates product should not be used on.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Samples for Verification: Where custom sealant color is specified, submit at least two physical samples for verification of each color to match adjacent materials of each required sealant.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

1.04 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Non-Sag Sealants:
 - 1. Permits application in joints on vertical surfaces without sagging or slumping.
 - a. BASF: www.master-builders-solutions.com.
 - b. Pecora Corporation: www.pecora.com.
 - c. SIKA: www.usa.sika.com.
 - d. TREMCO: www.tremcosealants.com.
 - e. Dow: www.dow.com.
 - f. GE: www.siliconeforbuilding.com.

2.02 JOINT SEALANT APPLICATIONS

A. Scope:

1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
 - a. Wall expansion and control joints.
 - b. Joints between door, window, and other frames and adjacent construction.
 - c. Joints between different exposed materials.
 - d. Openings below ledge angles in masonry.
 - e. Other joints indicated below.
2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
 - c. Other joints indicated below and as shown on drawings.
3. Do not seal the following types of joints.
 - a. Intentional weep holes in masonry.
 - b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
 - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
 - d. Joints where installation of sealant is specified in another section.
 - e. Joints between suspended panel ceilings/grid and walls.

2.03 NON-SAG JOINT SEALANTS

A. Exterior Use: Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion.

1. Movement Capability: +/- 25%, minimum.
2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
4. Hardness Range: 15 to 35, Shore A, when tested in accordance with ASTM C661.
5. Color: To be selected by Architect from manufacturer's standard range.
6. Cure Type: Single-component, neutral moisture curing.
7. Service Temperature Range: Minus 65 to 180 degrees F (Minus 54 to 82 degrees C).
8. Products:
 - a. Dow; [DOWSIL 790](#)
 - b. GE Silicone; [SCS2700 LM](#)
 - c. Pecora Corporation; [890 or 890 FTS](#)
 - d. SIKA; [Sikasil WS-290 FPS](#)
 - e. Tremco; [Spectrum 1](#)

B. Interior Use: Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.

1. Movement Capability: Plus and minus 25 percent, minimum.
2. Hardness Range: 20 to 35, Shore A, when tested in accordance with ASTM C661.
3. Custom Colors: Match adjacent finished surfaces.
4. Service Temperature Range: Minus 40 to 180 degrees F (Minus 40 to 82 degrees C).
5. Products:
 - a. BASF; [MasterSeal: NP2](#)
 - b. Pecora Corporation; [DynaTrol II](#)
 - c. SIKA; [SIKAFLEX 2-C](#)
 - d. Tremco; [DYMERIC 240/240FC](#)

2.04 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specified sealant, and recommended by backing and sealant manufacturers for specific application.
- B. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- C. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- D. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- C. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- D. Non-Sag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- E. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

3.04 EXISTING WORK

- A. Mechanically remove existing sealants.
- B. Clean joint surfaces of residual sealant and other contaminants capable of affecting sealant bond to joint surface by mechanical means.
- C. Allow joint surfaces to dry before installing new sealant.

3.05 POST-OCCUPANCY

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e., at low temperature in the thermal cycle. Report failures immediately and repair.

END OF SECTION 07 92 00

SECTION 08 36 00
SECTIONAL METAL OVERHEAD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Overhead sectional metal doors, electrically operated.
- B. Operating hardware and supports.
- C. Electrical controls.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- C. Product Data: Show component construction, anchorage method, and hardware.
- D. Maintenance Data: Include data for motor and transmission, shaft and gearing, lubrication frequency, spare part sources.

1.03 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for warranty requirements.
- B. Manufacturer Warranty: Provide 5-year manufacturer warranty for electric operating equipment. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Any manufacturer/product that meets the intent of this specification is acceptable.

2.02 STEEL DOORS

- A. Steel Doors: Galvanized Flush steel, insulated; standard lift operating style with track and hardware; complying with DASMA 102, Commercial application.
- B. Steel Doors: Galvanized Flush steel, insulated; standard lift operating style with track and hardware; complying with DASMA 102, Commercial application.
- C. Door Panels: Galvanized steel construction; outer steel sheet of 27 gauge, 0.0164 inch (0.42 mm) minimum thickness, embossed stucco texture profile; inner steel sheet of 27 gauge, 0.0164 inch (0.42 mm) minimum thickness, flat profile; core reinforcement sheet steel roll formed to channel shape, rabbeted weather joints at meeting rails; polyurethane insulation.
- D. Window Frame: Manufacturers standard, finish to match. Locations as indicated on the drawings.
- E. Glazing: Fully tempered glass; insulated glass units; obscure; 1 inch (25.4 mm) overall thickness.

2.03 COMPONENTS

- A. Track: Provide galvanized track (type and size) as recommended by manufacturer to suit loading required and clearances available.
- B. Hinge and Roller Assemblies: Heavy duty hinges and adjustable roller holders of galvanized steel; floating hardened steel bearing rollers, located at top and bottom of each panel, each side.
- C. Lift Mechanism: Torsion spring counterbalance sized to weight of the door (minimum 7 to 1 safety factor) on cross head steel shaft, with die cast aluminum cable drum and braided galvanized steel lifting cables.
- D. High -Usage Package: Provide Springs, Rollers, Bearings and hinges for:
 - 1. 50,000 Cycles
- E. Sill Weatherstripping: Resilient hollow rubber strip, one piece; fitted to bottom of door panel, full length contact.
- F. Jamb Weatherstripping: Roll formed steel section full height of jamb, fitted with resilient weatherstripping, placed in moderate contact with door panels.
- G. Head Weatherstripping: EPDM rubber seal, one piece full length.
- H. Panel Joint Weatherstripping: Neoprene foam seal, one piece full length.
- I. Lock: Inside center mounted, adjustable keeper, spring activated latch bar with feature to retain in locked or retracted position; interior and exterior handle.
 - 1. Lock Cylinders: Provided by Owner, installed by Contractor.

2.04 MATERIALS

- A. Lumber: Softwood: kiln dried, fire treated.
- B. Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G60/Z180 coating, plain surface.
- C. Float Glass: Provide float glass glazing, unless noted otherwise.
 - 1. Heat-Strengthened and Fully Tempered Types: ASTM C1048.
- D. Insulation: Foamed-in-place polyurethane, bonded to facing.

2.05 ELECTRIC OPERATION

- A. Operator, Controls, Actuators, and Safeties: Comply with UL 325; provide products listed by ITS (DIR), UL (DIR), or testing agency acceptable to authorities having jurisdiction.
 - 1. Provide interlock switches on motor operated units.
- B. Electric Operators:
 - 1. Type:
 - a. Standard Duty
 - b. Heavy Duty with high usage doors (50,000 or higher cycles).
 - 2. Mounting: Side mounted on cross head shaft.
 - 3. Motor Rating: HP size and type as recommended by manufacturer.
 - 4. Voltage/Phase:
 - a. Match existing, field verify
 - b. Motor Voltage: 230 volts, single phase, 60 Hz.
 - 5. Motor Controller: NEMA ICS 2, full voltage, reversing magnetic motor starter.
 - 6. Controller Enclosure: NEMA 250, Type 1.
 - 7. Opening Speed: 12 inches per second (300 mm/s).
 - 8. Brake: Adjustable friction clutch type, activated by motor controller.
 - 9. Manual override in case of power failure.
 - 10. See Section 26 00 01 for electrical connections.
- C. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated; enclose terminal lugs in terminal box sized to comply with NFPA 70.
- D. Control Station: Provide standard three button (Open-Close-Stop) momentary-contact control device for each operator complying with UL 325.
 - 1. 24 volt circuit.
 - 2. Surface mounted, at interior door jamb.
 - 3. Entrapment Protection Devices: Provide sensing devices and safety mechanisms complying with UL 325.
 - a. Primary Device: Provide electric sensing edge, wireless sensing, NEMA 1 photo eye sensors, or NEMA 4X photo eye sensors as required with momentary-contact control device.
- E. Safety Edge: Located at bottom of sectional door panel, full width; electro-mechanical sensitized type, wired to stop and reverse door direction upon striking object; hollow neoprene covered to provide weatherstrip seal.
- F. Special Operation:
 - 1. Hand Held Transmitter: Digital control, and resettable.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- B. Verify that electric power is available and of the correct characteristics.

3.02 PREPARATION

- A. Prepare opening to permit correct installation of door unit to perimeter air and vapor barrier seal.

3.03 INSTALLATION

- A. Install door unit assembly in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.
- C. Securely brace door tracks suspended from structure. Secure tracks to structural members only.

- D. Fit and align door assembly including hardware.
- E. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

3.04 TOLERANCES

- A. Maximum Variation from Plumb: 1/16 inch (1.5 mm).
- B. Maximum Variation from Level: 1/16 inch (1.5 mm).
- C. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch (3 mm) from 10 ft (3 m) straight edge.
- D. Maintain dimensional tolerances and alignment with adjacent work.

3.05 ADJUSTING

- A. Adjust door assembly for smooth operation and full contact with weatherstripping.

3.06 CLEANING

- A. Clean doors and frames and glazing (if provided).
- B. Remove temporary labels and visible markings.

3.07 PROTECTION

- A. Protect installed products from damage until Date of Substantial Completion.
- B. Do not permit construction traffic through overhead door openings after adjustment and cleaning.

END OF SECTION 08 36 00

**SECTION 09 90 00
PAINTING AND COATING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Interior painting and coating systems.
- C. Scope:
 - 1. Finish surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
 - a. Interior:
 - 1) Masonry (CMU: Concrete, split face, scored, smooth, high density, low density, and fluted.
 - 2) Metal: Aluminum.
 - 3) Metal, Galvanized: Ceilings and ductwork.
 - 4) Wood: Walls, ceilings, and trim.
 - 5) Drywall: Walls, ceilings, gypsum board, and similar items.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Product characteristics.
 - 2. Surface preparation instructions and recommendations.
 - 3. Primer requirements and finish specification.
 - 4. Storage and handling requirements and recommendations.
 - 5. Application methods.
 - 6. Clean-up information.
- C. Samples: Submit four paper draw down samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
- D. Maintenance Data: Submit coating maintenance manual including finish schedule showing where each product/color/finish was used, product technical data sheets, safety data sheets (SDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Paint and Finish Materials: Unused/previously opened cans of paint, but not less than 1 gallon (4 L) of each color; from the same product run, store where directed.
 - 2. Label each container with color in addition to manufacturer's label.

1.03 QUALITY ASSURANCE

- A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 3 years experience and approved by manufacturer.
- B. MPI Standards:
 - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.04 EXAMINATION OF DOCUMENTS

- A. Examine the specifications for the work of other trade contractors and to become familiar with their work. All surfaces that are left unfinished by the requirements of other specifications to be finished by this section.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, product name, product code, color designation, VOC content, batch date, environmental handling, surface preparation, application, and use instructions.

- C. Paint Materials: Store at a minimum of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.
- D. Handling: Maintain a clean, dry storage area to prevent contamination or damage to materials.

1.06 FIELD CONDITIONS

- A. Do not apply materials when environmental conditions are outside the ranges required by manufacturer.
- B. Follow manufacturer's recommended procedures for producing the best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
 - 1. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.
 - 2. Do not apply coatings during cold, rainy or frosty weather.
 - 3. Do not apply to surfaces, which are exposed to hot sun.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design Products: Subject to compliance with requirements, provide products from one of the following manufacturers (all products are to be from the same manufacturer):
 - 1. Sherwin-Williams Company: Noted as "S-W"; www.sherwin-williams.com.
 - 2. PPG Paints: Noted as "PPG"; www.ppg.com.
 - 3. Benjamin Moore & Company: Noted as "BM"; www.benjaminmoore.com.

2.02 PAINTINGS AND COATINGS

- A. General:
 - 1. Provide factory/paint store-mixed coatings unless otherwise indicated.
 - 2. Do not reduce, thin, or dilute coatings or add materials to coatings unless specifically indicated in manufacturer's instructions.
- B. Volatile Organic Compound (VOC) Content:
 - 1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
 - a. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site, or other method acceptable to authorities having jurisdiction.
 - 1) Flat Paints & Coatings, VOC content of not more than 50 g/L.
 - 2) Non-flat Paints & Coatings VOC content of not more than 150g/L.
 - 3) Primers, Sealers, and Undercoaters VOC Content of not more than 100 g/L
 - 4) Industrial Maintenance; to include Anti-Corrosive and Anti-Rust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.
 - 5) Floor Coatings: VOC not more than 100 g/L.
 - 6) Shellacs, Clear: VOC not more than 730 g/L.
 - 7) Shellacs, Pigmented: VOC not more than 550 g/L.
 - 8) Stains, Interior: VOC not more than 250 g/L
 - 9) Varnishes; VOC not more than 275 g/L
- C. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

2.03 PAINT SYSTEMS - INTERIOR

- A. Metal: Ferrous, Zinc Coated (not scheduled for epoxy, except for Showers). HM Doors and Frames, Handrails, Miscellaneous metals.
 - 1. Alkyd Systems, Water Based - Electrostatic Painting of Existing Lockers
 - a. Gloss Finish:
 - 1) 1st Coat:
 - (a) S-W Kem Kromik Universal Metal Primer
 - (b) PPG Speedhide Zinc Chromate Metal Primer, 6-204.
 - (1) Minimum 1.5 mils dry.

- 2) 2nd and 3rd Coats:
 - (a) S-W P&M Industrial Alkyd Gloss Enamel, B54-100 Series
 - (b) PPG Pitt-Tech Plus DTM Gloss, 90-912
 - (1) Minimum 2.0 mils dry per coat.
- B. Metal, Galvanized: Exposed Overhead, Ceilings and ductwork.
 1. Dryfall Waterborne Topcoats:
 - a. Eg-Shel Finish:
 - 1) Touch-up:
 - (a) S-W Pro Industrial DTM Acrylic Primer/Finish B66W00011.
 - (b) PPG Pitt-Tech Int/Ext Primer DTM, 90-712.
 - (c) BM Corotech Waterborne DTM Metal Primer/Finish V110.
 - (1) Minimum 2 mils dry.
 - 2) 1st and 2nd Coat:
 - (a) S-W Pro Industrial Waterborne Acrylic Dryfall, B42-82 Series.
 - (b) PPG Speedhide Super Tech Flat-Eggshell 0-5 @60&85 Dry Fall, 6-725XI.
 - (c) BM Super Spec Sweep Up Flat Sheen 6@85, 153.
 - (d) Minimum 2.1 mils dry per coat.
- C. Wood:
 1. Latex Systems (Painted- Walls, ceilings and trim):
 - a. Eg-Shel/Satin Finish:
 - 1) 1st Coat:
 - (a) S-W Multi Purpose Latex Primer / Sealer B51-450 Series
 - (b) PPG Seal Grip Int/Ext. Acrylic Universal Primer/Sealer, 17-921.
 - (c) BM Fresh Start High Hiding All Purpose Primer N046.
 - (1) Minimum 1.5 mils dry.
 - 2) 2nd and 3rd Coat:
 - (a) S-W ProMar 200 0 VOC Interior Latex Eg-Shel, B20-2600 Series.
 - (b) PPG Speedhide Interior Eggshell 6-4310XI.
 - (c) BM Ultra Spec 500 Interior Eggshell 538.
 - (1) Minimum 1.3 mils dry per coat.
 2. Stain and Varnish System (Wood-Transparent Finish):
 - a. Satin Finish:
 - 1) 1st Coat:
 - (a) S-W Minwax Performance Series Tintable Wood Stain 250 VOC.
 - (b) PPG Deft Interior Oil Wood Stain.
 - (c) BM Lenmar QuickStain Alkyd Wiping Stain
 - (1) Spreading Rate: As needed to match architect's sample.
 - 2) 2nd and 3rd Coat:
 - (a) S-W Minwax Polycrylic finish.
 - (b) PPG Deft Polyurethane Interior Satin.
 - (c) BM Benwood Stays Clear Polyurethane Satin N423.
 - (1) Minimum 1 mil dry per coat.

2.04 EXTRA STOCK

- A. Provide left over paint with Owner for touch-up purposes. At completion of project, provide one complete set of drawdowns in each maintenance manual with a schedule noting the locations each paint color was used.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- E. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Masonry: 12 percent
 - 2. Wood: 15 percent
 - 3. Gypsum Board: 12 percent

3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove mildew from impervious surfaces by scrubbing with solution of water and bleach. Rinse with clean water and allow surface to dry.
- D. Masonry: Remove efflorescence and chalk. After prime coat is dry, fill remaining small holes, cracks and other defects with Swedish putty made by mixing dry spackle with prime paint.
- E. Gypsum Board: Fill minor defects with filler compound; sand smooth and remove dust prior to painting.
- F. Aluminum: Remove surface contamination and oil; wash with solvent according to SSPC-SP 1.
 - 1. All chipped, peeling or blistered paint must be removed by hand or power tool cleaning. Remove all oil, grease, dirt or other foreign materials. Remove excessive chalking or sanding. Remove any mildew present by scrubbing with detergent and bleach. Thoroughly clean surface with water prior to repainting.
- G. Galvanized Surfaces:
 - 1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
 - 2. Prepare surface according to SSPC-SP 2.
- H. Ferrous Metal:
 - 1. Solvent clean according to SSPC-SP 1.
 - 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
 - 3. Remove rust, loose mill scale, and other foreign substances using methods recommended by paint manufacturer and blast cleaning according to SSPC-SP 6. Protect from corrosion until coated.
- I. Wood: Remove dust, grit, and foreign matter. Scrape, sand, and spot prime knots and pitch streaks. Fill nail holes and imperfections with wood filler and sand smooth.

3.03 SCHEDULE OF INTERIOR WORK

- A. General
 - 1. Paint complete all surfaces noted with a "PT" on Room Finish Schedule.
 - a. New Work: In rooms with surfaces not scheduled for paint on Room Finish Schedule, paint hollow metal doors and frames, metal stairs and railings as occur.
 - b. Provide specified finish on exposed surfaces including, but not limited to the following:
 - 1) Prime coated mechanical units, piping, pipe covering, sprinkler piping, interior duct surfaces visible behind grilles, tanks without factory finish, radiation covers, cabinet unit heaters, exposed ductwork, louvers and grilles.
 - 2) Electrical panel box covers and surface raceways (over factory finish), conduits and boxes and all factory primed electrical equipment. (Except in maintenance, service and electrical rooms).
 - 3) Hollow metal doors and frames, steel stairs, ladders and railings, catwalks and safety mesh grilles, access panels, prime painted hardware, painted astragals and vision lite kits on doors, coiling grilles and doors (unless factory finished), metal supports for counters and exposed miscellaneous metals.

- 4) Plywood backboards for electrical panels/devices and low voltage. Primer. Color white or to match adjacent wall surface, two coats on unistrut mounted backboards. Cover all sides and within cutout areas. Mask the fire-retardant rating stamp on each sheet prior to priming and painting. Leave the stamps exposed and visible.
- c. Do not paint sealant.
- d. DO NOT paint low voltage Category rated (Cat5, Cat6, Cat6A) cabling, as it voids the warranty.
- e. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
- f. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- g. Paint exposed ceiling areas visible around edges of "clouds".

3.04 APPLICATION

- A. Conditions
 - 1. Do no work when surface, coating product, air temperature, humidity or dewpoint does not meet requirements of PROJECT CONDITIONS in Part 1 of this specification or manufacturers recommendations.
 - 2. Do no interior work until building is properly enclosed.
 - 3. Do work under adequate illumination and dust-free conditions.
- B. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- C. Apply products in accordance with manufacturer's written instructions.
- D. Apply coatings at spread rate required to achieve manufacturer's recommended dry film thickness.
- E. Regardless of number of coats specified, apply additional coats until complete hide is achieved.

3.05 PRIMING

- A. Apply primer to all surfaces unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.
 - 1. Tint prime and under coats being used under highly pigmented paint, approximately 1/2 to 3/4 depth of final color.
- B. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to top coat manufacturers.

3.06 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.
- B. Clean surfaces immediately of overspray, splatter, and excess material.
- C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.
- D. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.07 FIELD QUALITY CONTROL

- A. Testing and Painting Application: Owner reserves the right to test DFT of painted surfaces.
- B. If testing discovers that DFT of installed paint does not meet specification, the Contractor will pay for initial and final testing and recoat surfaces until testing agency confirms specification is met.

3.08 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION 09 90 00

SECTION 23 51 00
BREECHINGS, CHIMNEYS, AND STACKS

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes the following: These should be linked to part 2 and part 3 to turn off if not selected to be included
 - 1. Type B and BW vents

1.02 SUBMITTALS

- A. Provide product data for each type of product indicated. Include plans, elevations, sections, details, and attachments to other work. Include detail equipment assemblies and indicate dimensions, weights, loads, required clearances, methods of field assembly, components, hangers and seismic restraints, and location and size of each field connection. Boiler venting submittals shall be reviewed and approved by the Boiler Manufacturer prior to ordering.

1.03 CLOSEOUT DOCUMENTATION

- A. Maintenance Manuals: Submit maintenance manuals in accordance with Division 1 Section "Operating, Maintenance, and Warranty Data".
- B. Warranty: Submit special warranty specified in this Section.

1.04 QUALITY ASSURANCE

- A. Source Limitations: Obtain listed system components through one source from a single manufacturer.
- B. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code--Steel," for hangers and supports and AWS D9.1/D9.1M, "Sheet Metal Welding Code," for shop and field welding of joints and seams in vents, breechings, and stacks.
- C. Certified Sizing Calculations: Manufacturer shall certify venting system sizing calculations.
- D. Install Field Fabricated Metal Breeching and Chimneys in accordance with NFPA 37.

1.05 COORDINATION

- A. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 07 Section "Roof Accessories."

PART 2 PRODUCTS

2.01 LISTED TYPE B AND BW VENTS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Cleaver-Brooks; Div. of Aqua-Chem Inc.
 - 2. Heat-Fab, Inc.
 - 3. Metal-Fab, Inc.
 - 4. Schebler Co. (The).
 - 5. Selkirk Inc.; Selkirk Metalbestos and Air Mate.
 - 6. Van-Packer Company, Inc.
 - 7. DuraVent.
- B. Description: Double-wall metal vents tested according to UL 441 and rated for 480 deg F continuously for Type B, or 550 deg F continuously for Type BW; with neutral or negative flue pressure complying with NFPA 211.
- C. Construction:
 - 1. Inner shell and outer jacket separated by at least a 1/4" air space.
- D. Inner Shell: ASTM B 209, Type 3003 aluminum.
- E. Outer Jacket: Galvanized steel.
- F. Accessories: Tees, elbows, increasers, draft-hood connectors, terminations, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly.
 - 1. Termination: Round chimney top designed to exclude minimum 98% of rainfall.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 APPLICATION

- A. Listed Type B and BW Vents: Vents for certified gas appliances.

3.03 INSTALLATION OF LISTED VENTS AND CHIMNEYS

- A. Locate to comply with minimum clearances from combustibles and minimum termination heights according to product listing or NFPA 211, whichever is most stringent.
- B. Seal between sections of positive-pressure vents and grease exhaust ducts according to manufacturer's written installation instructions, using sealants recommended by manufacturer.
- C. Support vents at intervals recommended by manufacturer to support weight of vents and all accessories, without exceeding appliance loading.
- D. Slope breechings down in direction of appliance where feasible so that all condensate drains to appliance condensate trap. If it is not feasible for some portion to slope to appliance condensate trap, provide with condensate drain connection at lowest point piped to nearest drain. Condensate drains shall be connected upstream of condensate neutralization kit. Install condensate drain piping from all in-line drains to the condensate neutralization kit.
- E. Lap joints in direction of flow.
- F. Erect stacks plumb to finished tolerance of no more than 1 inch out of plumb from top to bottom.

3.04 CLEANING

- A. After completing system installation, including outlet fittings and devices, inspect exposed finish. Remove burrs, dirt, and construction debris and repair damaged finishes.
- B. Clean breechings internally, during and after installation, to remove dust and debris. Clean external surfaces to remove welding slag and mill film. Grind welds smooth and apply touchup finish to match factory or shop finish.
- C. Provide temporary closures at ends of breechings, chimneys, and stacks that are not completed or connected to equipment.

END OF SECTION 23 51 00

SECTION 26 00 01
ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 GENERAL

- A. The general conditions, special conditions and general requirements apply to all work under this division.

1.02 SUMMARY

- A. This Section includes the following:
1. Raceways and boxes.
 2. Conductors.
 3. Grounding and bonding.
 4. Lighting fixtures.
 5. Lighting controls.
- B. This project shall consist of furnishing all labor, materials, services, and equipment necessary for and incidental to the completion of the hereinafter described electrical work as required by the Plans and Specifications.

1.03 CODES, FEES AND PERMITS

- A. The complete electrical installation shall conform to all of the requirements and recommendations of the following codes and standards.
1. National Electrical Code
 2. State and Electrical Codes
 3. National Board of Fire Underwriters
 4. National Electrical Manufacturer's Association
 5. Underwriter's Laboratories
 6. N.E.C.A. Standard of Installation
 7. ADA Guidelines.
- B. All fees, permits, licenses, etc. necessary to complete the electrical work shall be paid by the Contractor.

1.04 DRAWINGS AND SPECIFICATIONS

- A. These documents are intended to supplement each other such that information contained in either shall be executed in like manner. The drawings are in general diagrammatic and not intended to show exact locations. Contractor shall coordinate installation with other documents and on-site conditions.
- B. If a question exists regarding the exact intention of the documents, instructions shall be obtained from the architect/engineer before proceeding. If instructions cannot be obtained due to time or communication limitations, the greater quantity, superior quality, or condition most favorable to the owner shall be assumed.
- C. Contractors shall be responsible to review all drawings, including, but not limited to architectural, mechanical, structural, civil and landscaping for portions of their work to be included in this contractor's scope of work. No extras or credits will be allowed due to a contractor's failure to review and coordinate with all other disciplines.

1.05 WORKMANSHIP

- A. Experienced and skilled professionals in the electrical trade shall perform all work in a neat manner; only quality work will be accepted.
- B. Install equipment to facilitate service, maintenance and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future access with minimum interference to other items in the vicinity.
- C. Any materials or equipment damaged during construction shall be either replaced or repaired to a new condition as determined by the Architect. Any repaired materials or equipment shall retain original warranty.

1.06 MATERIALS AND EQUIPMENT

- A. All materials and equipment shall be as specified and indicated by the Plans. Items specified with the option of equals may be substituted for at the Contractor's option. However, Contractor may be required to verify equal status and final approval is by the engineer.
- B. All installed materials and equipment shall be new and free of defects.
- C. Protect materials and equipment stored on site from weather and physical damage.

1.07 COORDINATION

- A. Contractor shall be responsible for total site layout and coordination of the electrical work with other trades and site conditions. Minor revisions may be required to meet these requirements, however, shall not be implemented without approval. Work schedules shall be dictated by that of other trades and the project schedule. Cutting, patching, trenching, etc., as required for the completion of the electrical work shall be the responsibility of this Contractor.

1.08 GUARANTEE

- A. All work shall be unconditionally guaranteed for a period of one year from final payment to be free from any defects due to faulty workmanship or materials. Contractor shall replace, repair, or alter at their expense, any items brought to his attention during this period.

1.09 SUBMITTALS

- A. Shop drawings:
 - 1. Manufacturer's approval drawings shall be submitted prior to purchase for the following items:
 - a. Lighting fixtures
 - b. Lighting controls
- B. Upon completion of the project submit to the Engineer for approval Record Drawings which reflect all additions and/or modifications to the systems shown and required for the indicated area of the facility. Submit plans marked up with all revisions documented by Proposal Requests, Supplemental Instructions or Requests For Information. Plans should also include accurate route locations of major feeders and underground conduits.
- C. Upon completion of the project submit Operation and Maintenance Manuals to the Engineer for approval. Manuals to include:
 - 1. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - a. Subject matter included in manual.
 - b. Name and address of Project, Owner and Architect.
 - c. Name, address and telephone number of Contractor.
 - d. Date of submittal.
 - e. Cross-reference to related systems in other operation and maintenance manuals.
 - 2. 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.
 - 3. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. Include one set of approved Shop Drawings and Record Drawings.
 - 4. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - 5. As-Built: Submit plans marked up with all revisions documented by Proposal Requests, Supplemental Instructions or Requests For Information. Plans should also include accurate route locations of major feeders and underground conduits.
- D. Provide and document owner training on systems as required below and in Division 01.
- E. Submit documentation indicating Owner receipt of unused extra materials.

PART 2 PRODUCTS

2.01 RACEWAYS

- A. All conductors shall be enclosed in a concealed raceway system.
 - 1. Conceal conduit within finished walls, ceilings, and floors, unless otherwise indicated.
 - 2. Minimum Raceway Size: 1/2-inch trade size. 3/4-inch for home runs.
 - 3. Install neat and orderly, perpendicular or parallel with building construction.
 - 4. Support with non-corrosive metallic straps, clamps or hangers.
 - 5. Coordinate routing with other trades. Conduit location is secondary to mechanical and general construction elements of building.
 - 6. Conduits penetrating walls, etc., shall be sealed to maintain the integrity of the assembly.

- B. Comply with the following indoor applications, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage: EMT.
 - 2. Exposed, Not Subject to Severe Physical Damage: EMT
 - 3. Exposed and Subject to Severe Physical Damage: Rigid steel conduit or IMC. Includes raceways in the following locations:
 - 4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
 - 5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
 - 6. Damp or Wet Locations: Rigid steel conduit or IMC.
 - 7. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, stainless steel in damp or wet locations.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid and Intermediate Steel Conduit: Threaded rigid steel conduit fittings.
 - 2. EMT: Steel set-screw type.
- D. Junction and Outlet Boxes: Boxes shall be of galvanized code gauge steel as manufactured by Appleton, Steel City, Raco or equal. Boxes shall comply with the following requirements:
 - 1. Minimum size 4" square or octagon by 1 1/2" deep.
 - 2. Plaster or extension rings as required.
 - 3. Masonry type where required.
 - 4. Pull and junction boxes sized per code.
 - 5. Supported independent of conduit system.
 - 6. Offset back-to-back boxes a minimum of 6".
 - 7. Type FS for surface exterior applications.
- E. Surface Raceways: All exposed surface wiring in finished areas shall utilize a surface raceway system as manufactured by Wiremold. System shall conform to the following requirements:
 - 1. Components shall be buff in color.
 - 2. Minimize size comparable to Wiremold 500.
 - 3. All fitting shall be factory formed and finished.
 - 4. All boxes shall be square cornered except round for fixtures.
 - 5. Raceway chassis may not be used for a ground. Provide ground wires.

2.02 CONDUCTORS

- A. Copper Conductors: UL listed. The conductors shall be annealed (soft) copper having a conductivity of 98% pure copper, 600 volt minimum rating and meet or exceed all applicable ASTM, NEMA, UL, ICEA specifications. The specific types shall be as specified herein, and sized as shown or required, unless otherwise noted. Conductors 8 AWG and larger shall be stranded per N.E.C. No conductor smaller than 12 AWG shall be used unless specifically noted. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.
 - 1. 600V Feeder Conductors - Type THHN/THWN.
 - 2. Branch Circuit and Control Conductors - Type THHN/THWN.
 - 3. 600V Feeder, Branch Circuit and Control Conductors Installed Underground or Outdoors in Conduit - Type XHHW.
 - 4. Control Cable (Low-Voltage) – 600V, 16-gauge, plenum rated heavy-duty multi-conductor type, with PVC/nylon insulation over each conductor, color coded, and PVC overall jacket.
 - 5. Cord Drops and Portable Appliance Connections – Type SO, hard service cord with stainless-steel, wire-mesh, strain-relief device at terminations to suit application.

2.03 GROUNDING AND BONDING

- A. Grounding shall be in accordance with NEC Article 250 and UL 467.
- B. Grounding and bonding shall be installed in a neat and workmanlike manner. The NEIS Standard Practices for Good Workmanship in Electrical Contracting NECA 1-2006 is hereby adopted to define such workmanship and the installation of conductors and cables.

- C. Equipment grounding conductors shall be installed in all conduits (including feeders and branch circuits), flexible raceway runs, and armor-clad runs.
- D. Conductors: Install stranded conductors for No. 12 AWG and larger, unless otherwise indicated.
- E. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.

2.04 LIGHTING FIXTURES

- A. Fixtures shall be as indicated by the Light Fixture Schedule. Fixtures must comply with the following requirements:
 - 1. Rigidly support fixtures from structural system.
 - 2. Recessed fixtures in lift-out ceilings shall be connected with 6' flexible conduits to adjacent system junction box.
 - 3. Lighting fixtures indicated to serve as night lighting and/or emergency egress lighting shall be connected to the continuously energized portion of the room lighting branch circuit, unless indicated otherwise by the drawings.
 - 4. Lighting standard foundations shall be as recommended by manufacturer and as shown on the plans.
- B. LED lighting:
 - 1. Provide driver as required for proper operation of fixture. The driver's maximum case temperature shall not be exceeded at the maximum operating ambient. Thermal management shall be passive by design. The use of fans or other mechanical devices is prohibited.
 - 2. Technical requirements:
 - a. Fixtures shall be tested and rated per most recent edition of IES LM-79, IES LM-80, and IES TM-21 with rated life of 70,000 hours or greater. The thermal management (of the heat generated by the LEDs) shall be of sufficient capacity to ensure proper operation of the luminaire over the rated life.
 - b. The individual LEDs shall be connected such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire.
 - c. Power Factor: The luminaire shall have a power factor of 90% or greater at all standard operating voltages.
 - d. THD: Total harmonic distortion (current and voltage) induced into an AC power line by a luminaire shall not exceed 20 percent at any standard input voltage.
 - e. Dimming (where indicated): The luminaire shall be capable of continuous dimming without perceivable flicker over a range of 100% to 5% of rated lumen output. Dimming shall be controlled by a 0-10V signal.
 - f. Minimum CRI 80 for interior fixtures. Color temperature of 4000 K for interior fixtures unless noted otherwise.

2.05 LIGHTING CONTROLS

- A. Interior controls:
 - 1. Provide line voltage and low voltage commercial grade switches as indicated on plans. Low voltage switches shall be 0-10V on/off-labeled push-button type, with up/down buttons if dimming is required, and integral motion sensor where called out.
 - 2. Provide wall or ceiling motions sensors as indicated on plans. Utilize appropriate sensing technology for space. Provide ancillary equipment (power packs, room controllers, etc) and cabling as required to connect to photocells and switches such as to provide a complete and functional lighting control system. Program as called out on plans, where information is not called out use manufacturer-recommended settings for type of area in which installed.
 - 3. Provide photocells where shown on plans. Dim indicated interior fixtures. Program with settings as recommended by manufacturer.
- B. Provide test report indicating functional testing of controls. Test to indicate system is in proper working condition (location, aiming, scheduling, etc). In addition simulate an occupied and unoccupied condition to verify lighting and switches are operating properly.

PART 3 EXECUTION

3.01 ELECTRICAL DEMOLITION

- A. Electrical Contractor shall perform all demolition and removal of the existing electrical installation as required to complete construction revisions as indicated on the drawings. Coordinate phasing requirements with construction sequence schedule. Coordinate demolition with other trades to prevent disruption to the Owner and minimize the downtime.
- B. It is acceptable to abandon in place raceways and boxes scheduled to be demolished ONLY where they are embedded in a structure that is to remain in place. In these instances contractor shall remove all cable from raceways and cap, and remove all devices from boxes and provide blank coverplates. Otherwise no portion of electrical systems scheduled for demolition shall be abandoned in place.
- C. All existing materials and equipment indicated by Owner to be salvaged and which are not scheduled to be reused or relocated, shall be carefully removed and handled with care to minimize damage, and shall be delivered to the Owner and stored where directed on the site.
- D. All existing materials and equipment indicated to be reused or relocated shall be carefully removed and handled with care to minimize damage, and stored on the site. This existing equipment shall be thoroughly cleaned prior to reinstating. All other existing materials or debris resulting from demolition operations shall become the property of the Contractor, removed from the premises, and legally disposed off-site.
- E. Existing outlets (lighting fixtures, receptacles, switches, signal system devices, etc.) shall remain unless otherwise indicated. Existing work altered during the course of remodeling shall be placed in safe operating condition and shall be restored to satisfactory operating condition.
- F. The contractor shall provide new wiring devices in relocated outlets of same style and type as were previously installed, except that new general purpose switches, receptacles and cover-plates for relocated outlets shall be furnished as specified.
- G. Lighting fixtures located in areas where ceiling or walls are to be replaced shall be taken down, cleaned and reinstalled on new ceilings or wall. If conduit and wiring serving these fixtures must be removed to permit demolition work, new conduit and wire shall be installed to provide same circuiting arrangement as originally specified.
- H. Where existing conduit and wiring are located in or attached to an existing wall, ceiling or floor to be removed, they shall be rerouted in new construction to maintain continuity of circuits unless otherwise approved by Engineer.
- I. Conduit shall be concealed within the existing building construction wherever possible, or where otherwise indicated on the drawings. In all existing and remodeled areas having suspended ceilings, conduit shall be concealed above ceilings.
- J. Existing conductors shall be disconnected and removed wherever existing circuits are abandoned, and shall become the property of the Contractor.
- K. Where conditions other than those previously stated occur, this Contractor shall consult with the Engineer prior to performing any work to insure that method of correction will be satisfactory.

3.02 SPECIAL INSTRUCTIONS TO THE CONTRACTOR

- A. Upon completion of construction test all newly installed systems and components for functionality.
- B. Branch circuit wiring is not shown on the drawings, but is designated by the indication of panel and circuit numbers (respectively). Panel and circuit numbers are shown adjacent to each device for lighting and receptacles (panel may also be designated by the general plan notes). Motor branch circuiting is indicated on the plans while other circuiting requirements shall be as indicated in the notes, schedules, etc.
- C. All branch circuits shall be 20 amp utilizing 20 amp conductors, unless indicated otherwise, or as required by an obvious requirement such as designations for special purpose receptacles or similar.
- D. Locations and routing of all conduits, wiring, cables, homeruns, etc. shall be determined by the Electrical Contractor, and shall be done in a neat and orderly fashion.
- E. Feeders are sized based on ampacities only. The Electrical Contractor shall provide the appropriate conduit and wire size based on their choice of conductors.

3.03 IDENTIFICATION

- A. Device Labeling: Identify panelboard and circuit number from which served. Use permanent ink marker to label inside of box, and provide permanent adhesive labels (clear tape with black lettering) on front of coverplate.
- B. Provide labeling for equipment listed below. Utilize embossed adhesive-backed, black and white name plates with 3/8" high letters. Do not abbreviate, use terminology that can be easily understood by the owner.
- C. All panels shall be provided with typed circuit directories using easily understood terminology.
- D. Equipment to Be Labeled:
 - 1. Panelboards.
 - 2. Update panelboard directories of all modified panelboards.
 - 3. Individual breakers/fusible switches in switchboards or distribution panelboards.
 - 4. Electrical cabinets and enclosures.
 - 5. Electrical switchgear and switchboards.
 - 6. Transformers.
 - 7. Motor-control centers.
 - 8. Disconnect switches.
 - 9. Enclosed circuit breakers.
 - 10. Motor starters.
 - 11. Push-button stations.
 - 12. Power transfer equipment.
 - 13. Contactors.
- E. Color-Coding for Phase: Use the colors listed below for ungrounded service, feeder, and branch-circuit conductors.
 - 1. Colors for 208/120-V Circuits:
 - a. Phase A: Black.
 - b. Phase B: Red.
 - c. Phase C: Blue.
 - 2. Colors for 480/277-V Circuits:
 - a. Phase A: Brown.
 - b. Phase B: Orange.
 - c. Phase C: Yellow.

3.04 CLOSEOUT

- A. Submit Record Drawings and Operation & Maintenance manuals as described in Part 1.
- B. Provide and document Owner training for all systems described herein unless otherwise indicated by Owner/Engineer. Refer to Division 01.
- C. Provide extra materials where indicated.

END OF SECTION 26 00 01