# PROJECT MANUAL FOR City of Aurora Project #: 21-32R

WILDER PARK PROMENADE PAVILION FACILITY 350 N. RIVER STREET AURORA, ILLINOIS 60506

**OWNER** 



# CITY OF LIGHTS

44 E. DOWNER PLACE AURORA, ILLINOIS 60507

ARCHITECT

KLUBER ARCHITECTS + ENGINEERS 10 S. SHUMWAY AVE. BATAVIA, ILLINOIS 60510

BIDS DUE WEDNESDAY, AUGUST 18, 2021, AT 2:00 P.M. CITY OF AURORA CITY CLERK'S OFFICE 44 E. DOWNER PLACE AURORA, ILLINOIS 60507

DATE: JULY 30, 2021 PROJECT NO. 19-130-1277

# SECTION 00 01 01 PROJECT TITLE PAGE

# **PROJECT MANUAL**

FOR

# CITY OF AURORA - WILDER PARK PROMENADE PAVILION FACILITY 350 N. RIVER STREET AURORA, ILLINOIS 60506

OWNER

CITY OF AURORA 44 EAST DOWNER PLACE AURORA, ILLINOIS 60507

ARCHITECT/ENGINEER

KLUBER ARCHITECTS + ENGINEERS 10 S. SHUMWAY AVE. BATAVIA, ILLINOIS 60510

END OF DOCUMENT

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# SECTION 00 11 13 ADVERTISEMENT FOR BIDS

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#### INVITATION TO BID 21-32R WILDER PARK PROMINADE PAVILION FACILITY FOR THE CITY OF AURORA

Sealed bids will be received at the office of the City Clerk, 44 East Downer Place, Aurora, Illinois 60507, until 2:00 p.m., Wednesday, August 18, 2021 for the Wilder Park Prominade Pavilion Facility located at 350 N. River Street in Aurora, Illinois 60506.

A non-mandatory teleconferenced live streamed bid opening will be held regarding this Invitation to Bid. Information regarding this opening, including the dial-in number and meeting link, will be posted to the city's website at <u>https://www.aurora-il.org/bids.aspx</u> 24 to 48 hours in advance of the bid opening.

The proposed work consists of a new open air pavilion facility, approximately 1,500 square feet, at the corner of River Street and Vine Street. The roof of the facility will incorporate a roof observation area which will align with the upper grade. A separate, independent site package has been awarded and construction has begun.

Drawings, Specifications and other pertinent documents will be available Tuesday, August 3, 2021 and may be obtained online at https://www.aurora-il.org/bids.aspx

The Bidding Documents may also be examined at the Architect's office, Kluber, Inc., 10 S. Shumway Avenue, Batavia, IL 60510.

There is no pre-bid meeting planned for this project.

Questions regarding the bids are to be sent to the Director of Purchasing at PurchasingDL@aurora.il.us. All questions must be submitted in writing via e-mail by 8:00 a.m., Tuesday, August 10, 2021. Questions will be answered via addendum and posted to the City's website at <u>https://www.aurora-il.org/bids.aspx</u> by 12:00 pm, Thursday, August 12, 2021. NO questions will be accepted or answered verbally. NO questions will be accepted or answered after Tuesday, August 10, 2021 at 8:00 a.m. cut-off date/time.

A bid bond or a certified check payable to the City of Aurora in the amount of 10% of the bid price is required with the bid presented. A 100% performance and payment bond will be required from the successful Bidder.

The City of Aurora encourages minority business firms to submit bids and encourages the successful firm to utilize minority businesses as applicable.

#### Any Bidder who owes the City money may be disqualified at the City's discretion.

Sufficient proof of liability and workmen's compensation insurance must be furnished to satisfy requirements of the City of Aurora.

When required by State Law, please be advised that all Bids must comply with the Illinois Prevailing Wage Act and the Prevailing Rate of Hourly Wages in the City of Aurora where the Work is to be performed is to be paid to all persons on the project.

The successful respondent shall comply with all codes, ordinances, rules, statutes, laws and regulations of the City of Aurora, State of Illinois as they apply to all Public Works construction projects.

The City of Aurora reserves the right at any time and for any reason to cancel this Invitation to Bid, to accept or reject any or all Bids or portion thereof or accept an alternate bid. The City reserves the right to waive any immaterial defect in any bid, or technicality, informality or irregularity in the bids received, and to disregard all nonconforming or conditional bids or counterproposals. Unless otherwise specified by the bidder or the City, the City reserves the right to hold the best bids for ninety (90) days from the opening date set forth above. The City may seek clarification from any bidder at any time and failure to respond promptly is cause for rejection. The City further reserves the right to award the bid to the lowest responsible Bidder whose offer best responds in quality, fitness and capacity to the requirements of the proposed work or usage and therefore is in the best interest of the City.

CITY OF AURORA

Jolene Coulter Director of Purchasing

# SECTION 00 21 13 INSTRUCTIONS TO BIDDERS

# 1.01 FORM OF INSTRUCTIONS TO BIDDERS

- A. AIA Document A701 (1997 Edition) Instructions To Bidders is hereby made part of the Bidding Requirements to the same extent as if written out in full.
- B. The above document may be examined at the Architect/Engineer's office or purchased at the American Institute of Architects, http://www.aia.org.
- C. City of Aurora Instructions to Bidders attached (14 pages). END OF DOCUMENT

#### **CITY OF AURORA, ILLINOIS INSTRUCTIONS TO BIDDERS**

#### 01. **REQUIREMENTS OF BIDDER**

The successful Bidder may be required to (a) enter into a fully signed contract in writing with the City of Aurora covering matters and things as are set forth in the Bid Package; (b) execute a bond necessary for surety acceptable to the City of Aurora in the amount of one hundred percent (100%) of the full contract price and to be conditioned for the faithful fulfillment of the contract for the payment of all labor and materials used in the Work and to include the protection of the City from all liens and damages arising out of the Work; (c) carry insurance acceptable to the City covering public liability, property damage and workers compensation; and (d) pay workers in accordance with the schedule of prevailing wages for Kane County attached hereto.

# 2. ACCEPTANCE OF BIDS

- a. Bidder must submit an original bid response, marked as "original" and one (1) complete paper copies and one (1) PDF copy on a CD, and shall have provided all requested information, and submitted all appropriate forms, certificates, affidavits and addendum acknowledgements <u>in each copy</u> in order to be considered responsive.
- b. Bids must be submitted on the forms provided and all information and certifications called for must be furnished. Bids submitted in any other manner, or which fail to furnish all information or certificates required, may be summarily rejected. Bids may be modified or withdrawn prior to the time specified for the opening of bids. Bids shall be filled out legibly in ink or type-written with all erasures, strike overs and corrections initialed in ink by the person signing the bid. The bid shall include the legal name of the bidder, the complete mailing address, and be signed in ink by a person or persons legally authorized to bind the bidder to a contract. Name of person signing should be typed or printed below the signature.

Envelopes containing bids must be sealed and addressed to the City of Aurora City Clerk. The name and address of the bidder and the Invitation Number must be shown in the upper left corner of the envelope.

c. The City of Aurora reserves the right at any time and for any reason to accept or reject any or all Bids or portion thereof, or accept an alternate bid. The City reserves the right to waive any immaterial defect in any bid, or technicality, informality or irregularity in the bids received, and to disregard all nonconforming or conditional bids or counter-proposals. Unless otherwise specified by the bidder or the City, the City reserves the right to hold the best bids for ninety (90) days from the opening date. Bidder agrees to accept a notice of award, if selected, based on the terms of this Bid Proposal in the event that a notification of award is received on or before expiration of the 90-day time period. The City reserves the

right to cancel the Bid Proposal at any time, without liability for any loss, damage, cost or expense incurred or suffered by any Bidder as a result of that cancellation. Each Bidder is solely responsible for the risk and cost of preparing and submitting a Bid Proposal.

d. Although price is a consideration, qualifications and experience, capacity to handle the work, and response to the bid, will also be considered. No Bid Proposal will be considered unless the Bidder shall furnish evidence satisfactory to the City that he has the necessary facilities, abilities, experience, equipment, and financial and physical resources available to fulfill the conditions of the contract and execute the Work should the contract be awarded to them. Bid Proposal documents which are not responsive to the requirements herein may not be considered by the City for an award of the contract.

The contract will be awarded to the lowest responsive responsible Bidder. In determining the responsibility of any Bidder, the City may take into account other factors such as past records of its or other entities transactions with the Bidder, experience, ability to work cooperatively with the City and its staff, adequacy of equipment, ability to complete performance within necessary time limits, and other pertinent considerations such as, but not limited to, reliability, reputation, competency, skill, efficiency, facilities and resources.

The Bidder will be awarded in the City's best interests based on these and other legally-allowable considerations. The City and its representatives and agents may make any investigations deemed necessary to determine the ability of the Bidder to perform the Work. The Bidder shall furnish any information and data requested by the City for this purpose.

#### **3. RECEIPT OF BIDS**

- a. It is suggested that respondents allow a minimum of four (4) days for delivery through U.S. mail, or Bids may be delivered to the Office of the City Clerk in person. Overnight courier is acceptable provided timely receipt of Bids. The Bidder assumes responsibility for late delivery of the mail. It is the sole responsibility of the Bidder to see that his Bid is received in the proper time.
- b. Any Bid received by the Office of the City Clerk after 2:00 p.m. on Wednesday August 18, 2021 shall be rejected.

# 4. WITHDRAWAL OF BIDS

Bidders are cautioned to verify their bids before submission. Negligence on the part of the bidder in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. Bidders may not withdraw their bid after the opening without the approval of the Director of Purchasing. Requests to withdraw a bid must be in writing and properly signed. Bidders may, however, without prejudice, modify or withdraw its bid by written request, provided that the request is received by the City Clerk prior to the scheduled opening and at the address to which bid proposals were to be submitted. Following withdrawal or modification of its Bid Proposal, Bidder may submit a new Bid Proposal, provided it is received by the City Clerk prior to the bid proposal due date. No bid proposal will be opened which is received after the time and date scheduled for the Bid Proposals to be received.

# 05. BID DEPOSIT

Each Bidder shall deposit with his Bid a Bid guarantee consisting of a bank draft, Bid bond, cashier's check, or certified check drawn on a good and solvent National or State Bank and payable to the order of the City, in an amount not less than ten percent (10%) of the total amount of the Bid submitted, as a guaranty that in case the Bidder's Bid is accepted, the Bidder shall within one day after the date of such acceptance and notification thereof, deliver to the City a contract signed and executed by the Bidder, proper insurance certificates and a Performance and Payment Bond in one hundred percent of the contract sum furnished by a responsible bonding company acceptable to and written upon forms prepared or approved by the City as security for payment of labor and materials and for the faithful performance of the contract and compliance with the provisions of law relating to the payment of prevailing rate of wages. All Bid deposits will be retained by the City until a Bid award is made, at which time the Bid deposit will be promptly returned to the unsuccessful Bidders. The Bid deposit of the successful Bidder will be retained until the equipment, goods or services have been received or completed and found to be in compliance with the specifications. Performance by the Bidder shall not be considered complete, until final inspection and acceptance by the City of the Bidder's Work. Final inspection shall occur within 30 days after the actual completion of the Work. Execution of the contract is contingent upon receipt of an acceptable Performance and Payment Bond and any required certificates of insurance. Upon failure to meet the requirements of this paragraph, the Bidder shall forfeit the amount deposited as liquidated damages and no mistakes or errors on the part of the Bidder shall excuse the Bidder or entitle him to a return of the aforementioned amount.

# 06. BOND AND INSURANCE

The Bidder will be required to furnish a Performance and Payment Bond in the amount of one hundred percent (100%) of the full contract price, Public Liability Insurance, and Workers Compensation Insurance; all of which shall be acceptable to the City of Aurora.

The Bidder awarded the project will need to provide performance and payment bonds for one year with a letter attached from the bond company certifying that the bond may be automatically renewed for the second year.

The term Payment Bond shall be understood to mean the bond executed by the Bidder and his surety guaranteeing the payment of all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished to such principal for the purpose of performing the contract work.

The term Performance Bond shall be understood to mean the bond, executed by the contractor and his surety, guaranteeing complete execution of the contract.

Proof of liability insurance coverage through a reputable, recognized carrier shall be provided at the time of acceptance and signing of the contract and shall remain current for the duration of the contract.

The City of Aurora, by showing and substantiating sufficient proof of incompetence, negligence, poor or substandard workmanship which would cause unwarranted damage or deterioration of either premises, contents or appendages, reserves the right to terminate said Contractor without recourse from the City by successful Contractor.

#### 07. CITY'S AGENT

The Director of Purchasing, or his delegate, shall represent and act for the City in all matters pertaining to the Bid proposal and contract in conjunction thereto.

#### 08. INVESTIGATION

It shall be the responsibility of the Bidders to make any and all investigations necessary to become thoroughly informed of what is required and specified in the Bid. No plea of ignorance by the Bidders of conditions that exist or may hereafter exist as a result of failure or omission on the part of the Bidder to make the necessary examinations and investigations will be accepted as a basis for varying the requirements of the City of the compensation to the Bidder.

Each Bidder submitting a Bid is responsible for examining the complete Bid Package and all Addenda, and is also responsible for informing itself of all conditions that might in any way affect the cost or the performance of any Work. Failure to do so will be at the sole risk of the Bidder, and no relief will be given for errors or omissions by the Bidder. If awarded the contract, the Bidder will not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder should have fully informed himself, because of his failure to have so informed himself prior to the bidding. The submission of a Bid shall be construed as conclusive evidence that the Bidder has made such examination as is required in this section and that the Bidder is conversant with local facilities and difficulties, the requirements of the Bid Package documents, and of pertinent, local, state and federal laws and codes, prevailing local labor and material markets, and has made due allowance in its Bid for all contingencies. Before any award is made of the contract to the Bidder, the Bidder may be required to, upon request of the City, furnish information concerning his performance record in his capacity to complete the Work in an efficient and timely manner.

#### **09. BIDDER CAPABILITY**

The City reserves the right to require of the Bidder proof of his/her capability to perform as required by the specifications. However, prequalification of the Bidder shall not be required. The City may, at its option, disqualify a Bidder and reject his proposal for cause. Reasons deemed sufficient for this action shall include, but not be limited to, the following:

- Evidence of collusion among bidders.
- Receipt of more than one bid proposal on any project from an individual, or from a corporation. This restriction does not apply to subcontractors.

- Default on any previous contract.
- Unreasonable failure to complete a previous contract within the specified time or for being in arrears on an existing contract without reasonable cause for being in arrears.
- Inability to perform as revealed by an investigation of the Proposer's financial statement, experience and/or plant and equipment.
- Any proposer who owes the city money may be disqualified at the City's discretion.

#### 10. AWARD OF BID

It is the intent of the City to award a contract to the lowest responsive responsible bidder meeting specifications. The City reserves the right to determine the lowest responsive responsible bidder on the basis of an individual item, groups of items, or in any way determined to be in the best interests of the City. Award will be based on the following factors, but not limited to (where applicable): (a) adherence to all conditions and requirements of the bid specifications; (b) price; (c) qualifications of the bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; and (g) repurchase or residual value.

However, if the Bidder modifies limits, restricts or subjects his bid proposal to conditions that would change the requirements of the bid, this would be considered a conditional or qualified Bid Proposal and will not be accepted. The City reserves the right to delete any item listed in the bid.

# 11. PRICES

The price quoted for each item is the full purchase price, including delivery to destination and includes all transportation and handling charges, premiums on bonds, material or service costs and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the contract period.

Unit prices shall not include any local, state or federal taxes. In case of mistake in extension of price, unit price shall govern. All prices must be typewritten or written in black ink. (The party signing the Bid Proposal or his/her authorized representative must initial any alteration in ink.)

#### 12. DISCOUNTS

Prices quoted must be net after deducting all trade and quantity discounts. Where cash discounts for prompt payment are offered, the discount period shall begin with the date of receipt of a correct invoice or receipt or final acceptance of goods, whichever is later.

#### 13. PAYMENT

Payment shall be made for services rendered. The City, after inspection and acceptance, and in consideration of the faithful performance by the Bidder, agrees to pay for the completion of the work embraced in this Contract, payment shall be made in accordance with the Illinois Local Government Prompt Payment Act (50 ILCS 505/1, *et. seq.*) upon receipt of the invoice.

Time, in connection with any discount offered, will be computed from the date of delivery to the City or from the date a correct invoice is received by the City of Aurora Purchasing Division, if the latter date is later than the date of delivery.

Prices will be considered NET, if no payment discount is shown.

The successful Bidder shall submit invoices via e-mail to:

PurchasingDL@aurora-il.org

or Fax to **630-256-3559** 

or Mail to the following address:

City of Aurora Attn: Purchasing Division 44 E. Downer Place Aurora, IL 60507

The City of Aurora offers electronic funds transfer (EFT) payment to our vendors. EFT is fast, simple, safe and secure and is *our preferred method of payment!* An authorization agreement form is included in this bid proposal package for your use and convenience.

# 14. TAXES

The City of Aurora is exempt, by law, from paying State and City Retailer's Occupation Tax, State Service Occupation Tax, State Use Tax and Federal Excise Tax upon City works and purchases. The City of Aurora's Sales Tax Exemption Number is E9996-0842-07.

# 15. DEFAULT

Time is of the essence of this contract and if delivery of acceptable items or rendering of services is not completed by the time promised, the City reserves the right, without liability, in addition to its other rights and remedies, to terminate the contract by notice effective when received by Bidder, as to stated items not yet shipped or services not yet rendered The City will procure articles or service from other sources and hold the Bidder responsible for any excess cost incurred as provided for in Article 2 of the Uniform Commercial Code.

#### 16. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

Bidders shall promptly notify the City of any ambiguity, inconsistency of error which they may discover upon examination of the bidding documents. Interpretations, corrections and changes will be made by addendum. Each bidder shall ascertain prior to submitting a bid that all addenda have been received and acknowledged in the bid.

#### **17. INSPECTION**

Materials or equipment purchased are subject to inspection and approval at the City's destination. The City reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Bidder's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Bidder promptly after rejection.

#### **18. WARRANTY**

Bidder warrants that all goods and services furnished hereunder will conform in all respects to the terms of the solicitation , including any drawings , specifications or standards incorporated herein, and that they will be free from latent and patent defects in materials, workmanship and title, and will be free from such defects in design . In addition, Bidder warrants that said goods and services are suitable for, and will perform in accordance with, the purposes for which they are purchased, fabricated, manufactured and designed or for such other purposes as are expressly specified in this solicitation. The City may return any nonconforming or defective items to the Bidder or require correction or replacement of the item at the time the defect is discovered, all at the Bidder's risk and expense. Acceptance shall not relieve the Bidder of its responsibility.

Contractor and/or Bidder (as case may be) expressly warrants that all goods and services (real property and all structures thereon) will conform to the drawings, materials, performance and any other specifications, samples or other description furnished by the City, and will be fit and sufficient for the purpose intended, merchantable, of good material and workmanship. Contractor and/or Bidder (as case may be) agrees that these warranties shall run to the City of Aurora, its successor, assigns, customers and users of the products or services and that these warranties shall survive acceptance of the goods or performance of the services.

# **19.** CANCELLATION

The City reserves the right to cancel the whole or any part of the contract if the Bidder fails to perform any of the provisions in the contract or fails to make delivery within the time stated. The Bidder will not be liable to perform if situations arise by reason of strikes, acts of God or public enemy, acts of the City, fires or floods.

#### 20. SIGNATURES

Bid proposals must be signed by the Bidder with his/her usual signature. Bids by partnerships must be signed with the partnership name by all members of the partnership,

or an authorized representative, followed by the signature and title of the person signing. Bids by corporations must be signed with the name of the corporation, followed by the signature and title of the person authorized to bind it in the matter. All signatures must be in ink.

When a corporation submits a Bid, its agent must present legal evidence that he has lawful authority to sign said Bid and that the corporation has a legal existence. In the event that any corporation organized and doing business under the laws of any foreign state is the successful Bidder, such corporation must present evidence before any contract is executed that it is authorized to do business in the State of Illinois. Bids by corporations must be executed in the corporate name by the President or a Vice President (or other corporate officer accompanied by evidence of authority to sign), and the signature must be attested by the Secretary or an Assistant Secretary, and the corporate seal must be affixed. The corporate address and state of incorporation must be shown below the signature. Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature, and the official address of the partnership must be shown below the signature. Any corrections to entries made on the Bid forms shall be initialed by the person signing the Bid. When requested by the City, satisfactory evidence of the authority of any signature on behalf of the Bidder shall be furnished.

# 21. SPECIAL CONDITIONS

Wherever special conditions are written into the Special Conditions and Specifications which are in conflict with conditions stated in these Instructions to Bidders, the conditions stated in Special Conditions and Specifications shall take precedence.

# 22. PERMITS AND LICENSES

The successful Bidder shall obtain, at its own expense, all permits and licenses which may be required to complete the contract.

# 23. **REGULATORY COMPLIANCE**

Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and container for said good) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act as amended, with respect to design, construction, manufacture or use for their intended purpose of said goods or services. Bidder shall furnish "Material Safety Data Sheet" in compliance with the Illinois Toxic Substances Disclosure to Employees Act.

# 24. ROYALTIES AND PATENTS

Bidder shall pay all royalties and license fees. Bidder shall defend all suits or claims for infringement of any patent or trademark rights and shall hold the City harmless from loss on account thereof.

#### **25. REFERENCES**

Sufficient references of all like public and/or private agencies must be presented on a separate sheet and attached to this Bid. Listing must include company name, contact person, telephone number and date purchased. All Bidders, as a condition of and prior to entry into a contract, agree that a complete background investigation of the principals of the Bidder and all employees who will work on the project may be made. Bidders agree to cooperate with the appropriate City of Aurora personnel to supply all information necessary to complete these investigations. The City of Aurora in its complete discretion may disqualify any Bidder, including low Bidder, and may void any contract previously entered into based on its background investigation.

# 26. ELIGIBILITY

By signing this bid, the bidder hereby certifies that they are not barred from bidding on this contract as a result of a violation of Article 33E, Public Contracts of the Illinois Criminal Code of 1961, as amended (Illinois Compiled Statutes, 720 ILCS 5/33E-1).

# 27. COMPLIANCE WITH LAWS AND REGULATIONS

The Bidder shall at all times observe and comply with all Federal, State, Municipal and other local laws, ordinances, regulations, and requirements which in any manner affect the conduct of the Work, and with all Federal, State and local laws and policies of nondiscrimination, sexual harassment, prevailing wages and others applicable thereto; and all such orders or decrees as exist at the present and which may be enacted later, of bodies or tribunals having jurisdiction or authority over the Work, and no plea of misunderstanding or ignorance thereof will be considered. He shall indemnify and save harmless the City and all its officers, agents, employees and servants against any requirement, claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

# 28. PATENTED DEVICES, MATERIALS, AND PROCESSES

It is mutually understood and agreed that without exception contract prices are to include all royalties and costs arising in the Work. It is the intent that whenever the Bidder is required or desires to use any design, device, material, or process covered by letters or patent or copyright, the right of such use shall be provided for by suitable legal agreement with the patent owner. The Bidder in all cases shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patent design, device, materials, or process, to be performed or used under the contract, and shall indemnify and save harmless the said City for any costs, expenses, attorney's fees, and damages which it may be obligated to pay, by reason of any such infringement at any time during the prosecution or after the completion of the Work.

# 29. PROTECTION AND RESTORATION OF PROPERTY

It is understood that in the execution of the Work herein provided for there may be interference with and/or damage to trees, shrubbery, crops, fences, railroad tracks, overhead structures such as poles, wires, cables, underground structures such as sewers, gas mains, telephone conduits and cables, water mains, drains, service connections, wires, pipes, conduits, located along, adjacent to, and/or crossing the locations of the Work, and that it may be necessary to relocate or reconstruct certain of such structures, improvements, and installations and/or to make repairs to the same by reasons of doing the Work herein provided for, and it is therefore particularly and specifically agreed that the Bidder except as otherwise herein provided, shall do the Work necessary for such relocation, reconstruction, and repair and shall bear and pay all of the cost and expense of such relocation, reconstruction, and/or repair of, and all damage done to any and all such pipe line and other structures, improvements, and installations, including service connections, if any, to adjacent property, existing at the date of the execution of the contract and/or existing, during the period of the Work to be done under the contract, which may be interfered with, damaged, and/or necessarily relocated, reconstructed, or repaired in the performance of the Work herein provided for, including the restoration and resurfacing of unpaved portions of public streets and alleys, rights-of-way, easements, and private property damaged or disturbed by the Work, the same to be restored to as good condition as the same existed at the time of the commencement of any such Work or relocation.

It is further agreed that the owners of any structures, improvements, installations, referred to in the preceding paragraph shall have the right to do the Work or any part thereof necessary for the relocation, reconstruction, replacement, repair, and other Work required by reason of any interference with and/or damage to such structures, improvements, installations, due to the prosecution of the Work and upon completion of such Work by them done, said owners may render bills to the Bidder for the cost and expenses thereof which bills shall be paid by the Bidder without extra compensation therefore from the City, upon demand by said owners, or upon demand made by the City upon the Bidder for the payment thereof.

#### 30. INSURANCE AND HOLD HARMLESS PROVISION

At the Bidder's expense, the Bidder shall secure and maintain in effect throughout the duration of this contract, insurance of the following kinds and limits to cover all locations of the Bidder's operations. The Bidder shall furnish Certificates of Insurance to the City before starting or within ten (10) days after the execution of the contract, whichever date is reached first. All insurance policies shall be written with insurance companies approved by the City of Aurora and licensed to do business in the State of Illinois and having a rating of not less than A IX, according to the latest edition of the A.M. Best Company; and shall include a provision preventing cancellation of the insurance policy unless thirty (30) days prior written notice is given to the City. This provision shall also be stated on each Certificate of Insurance as: "Should any of the above described policies be canceled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the certificate holder named to the left".

If requested, the awardee of this proposal will give the City a copy of the insurance policies. The policies must be delivered to the City within two weeks of the request.

The limits of liability for the insurance required shall provide coverage for not less than the following amount, or greater where required by law:

- (1) Worker's Compensation Insurance Statutory amount.
- (2) General Liability Insurance:
  - (a) \$1,000,000 per occurrence and \$2,000,000 general aggregate

- (b) \$500,000 per occurrence for Property Damage
- (c) \$1,000,000 per occurrence for Personal Injury
- (3) Auto Liability Insurance:
  - (a) Bodily injury with limits not less than \$1,000,000
  - (b) Property damage with limits not less than \$500,000
- (4) Umbrella excess liability of \$1,000,000 per occurrence, \$2,000,000 aggregate

The Bidder shall include the City as a primary, non-contributory additional named insured on both General and Auto Liability Insurance policies and indicate said status on any Certificates of Insurance provided to the City pursuant to this project. All insurance premiums shall be paid without cost to the City.

The Bidder agrees to indemnify and save harmless the City of Aurora, their agents and employees from and against all loss and expenses (including costs and attorneys' fees) by reason of liability imposed by law or claims made upon the City of Aurora for damages because of bodily injury, including death at any time resulting therefrom sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this project work, whether such claims or injuries to persons or damage to property be due to the negligence of the Bidder or his Subcontractors. The Bidder shall assume total risk and shall be responsible for any and all damages or losses caused by or in any way resulting from the work and provide all insurance necessary to protect and save harmless the City of Aurora and its employees.

# **31. MINORITY PARTICIPATION**

The City of Aurora encourages minority business firms to submit proposers and encourages the successful contract bidder to utilized minority businesses as subcontractors for supplies, equipment, services and construction.

# 32. WORKERS COMPENSATION ACT

The Bidder further agrees to insure his employees and their beneficiaries and to the employees and the beneficiaries of any subcontractor employed from time to time by him on said Work, the necessary first-aid, medical, surgical, and hospital services and any compensation provided for in the Workers Compensation Act of the State of Illinois that is or may be in force in the State.

Such insurance shall be placed by said Bidder in a company or association (to be approved by the City and to be accepted by the Council thereof) authorized under the laws of the State of Illinois to insure the liability above specified.

Said Bidder hereby further agrees to indemnify, keep and save harmless said City from all action, proceedings, claims, judgments, awards, and costs, loss, damages, expenses, and attorney's fees which may in any way come against said City by reason of any accidental injuries or death suffered by any of his employees or the employees of any subcontractor employed by him in and about the performance of the Work provided for in the contract, and any and all liability resulting thereupon; and said Bidder, in case of any suit, action, or proceeding on account of any or all of the foregoing shall defend the same for and on behalf of said City and indemnify the City therefore, and pay the amount of any and all awards and final judgments and orders rendered and entered therein, together with all loss, costs, damages, attorney's fees, and expenses incurred therein. Said Bidder shall be the sole employer of its employees and workers, and in no way so shall the City be considered a joint employer of same under any circumstance.

#### **33. RESPONSIBLE BIDDER**

Section 2-331(5) of the Aurora City Code requires that bidders for city contracts in excess of \$25,000 must participate in active apprenticeship and training programs approved and registered with the United States Department of Labor's Bureau of Apprenticeship and Training to be considered a responsible bidder. A bidder must affirm such participation in the Bidder's Certification submitted with any bid. Furthermore, the bidder must submit a copy of each applicable program registration certificate with his/her bid.

#### 34. SUBLETTING OR ASSIGNMENT OF WORK

If the Bidder sublets the whole or any part of the Work to be done under the contract, with or without the written consent of the City, he shall not, under any circumstances, be relieved of his liabilities and obligations. All transactions of the City shall be with the Bidder; subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. In case any party or parties, to whom any work under the contract shall have been sublet, shall disregard the directions of the City or his duly authorized representatives, or shall furnish any unsatisfactory Work or shall fail or refuse in any way to conform to any of the provisions or conditions of the contract, then in that case, upon the written order of the City, the Bidder shall require said party or parties in default to discontinue Work under the contract. Said Work shall be corrected or made good and shall be continued and completed by the said Bidder or by such other party or parties as are approved by the City, in the manner and subject to all of the requirements specified in the contract.

#### **35. PROSECUTION OF WORK**

The Bidder shall begin the Work to be performed under the contract no later than ten (10) days after the execution and acceptance of the contract, unless otherwise provided. The Work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to insure its completion within the time specified in the contract. The Bidder shall solely be fully responsible for complying with State and local prevailing wage requirements in accordance with the Bidders Certification, and for all wage rate and hour regulations and applications.

#### 36. GUARANTEE AND MAINTENANCE OF WORK

The Bidder shall guarantee the Work to be free from defects of any nature for a period of one year from and after the final acceptance and payment for the Work by the City, and the Bidder shall maintain said Work and shall make all needed repairs and/or replacements during this one year period which in the judgment of the Council, may be necessary to insure the delivery of the Work to the City in first-class condition and in full conformity with the plans and specifications therefore, at the expiration of the guarantee period.

#### **37. CONTRACT**

The successful Bidder will be required to execute a contract in the form attached hereto (as may be modified and amended by the City) within five (5) days after notice of award and receipt of the contract from the City and sign and deliver to the City all required copies of the contract. Failure on the part of the Bidder to execute the contract within five (5) days and provide the required evidence of insurance at, or before the execution of the contract, will be considered just cause for the annulment of the award of the Bid.

# **38. INSURANCE CERTIFICATES**

At, or prior to, delivery of the signed contract, the successful Bidder shall deliver to the City the policies of insurance or insurance certificates as required by the contract Documents. All policies or certificates of insurance shall be approved by the City before the successful Bidder may proceed with the Work. Execution of the contract by the City is contingent upon receipt of the insurance policies or certificates. Failure to provide the evidence of insurance in the time provided for will result in disqualification and the Bid will be awarded to the next lowest Bidder or in the creation of a new Bid.

# **39. PERSONNEL AND EQUIPMENT**

The Bidder shall provide an adequate number of competently trained personnel with sufficient supervision to provide the services required, and the Bidder shall provide identification of its personnel if requested by the City.

Any Bidder's employee whose employment is reasonably detrimental or objectionable to the City shall be immediately transferred from the premises upon the City's request. The exercise of the option shall not be construed as placing the City in charge of the Work or making the City responsible for safety.

All on the road vehicles or equipment shall be identified by the Bidder's name for purpose of identification.

All tools or equipment required to carry out the operations within the scope of the contract shall be provided by the Bidder, and shall meet the standards of the Federal Occupational Safety and Health Act and State of Illinois safety codes as may be required by law. The City reserves the right to inspect the equipment that will be used prior to award of Bid.

#### **40. TIME**

Bidder shall schedule its Work and that of its subcontractors to meet the requirement of the City. Bidder shall perform the Work expeditiously in cooperation with the City's agents, employees, contractors and subcontractors. Bidder shall make no claim against City and no claim shall be allowed for any damages which may arise out of any delay caused by City, its agents, employees, contractor or subcontractors. Bidder's sole remedy for delay shall be an extension in the contract time.

#### 41. **QUESTIONS**

Inquiries and/or questions pertaining to the provisions and specifications of this bid package shall be directed to the Director of Purchasing in writing at PurchasingDL@aurora.il.us. Questions will be accepted until 8:00 am, Tuesday August 10, 2021. Questions will be answered via addendum and posted to the City's website at <a href="https://www.aurora-il.org/bids.aspx">https://www.aurora-il.org/bids.aspx</a> by 12:00 pm, Thursday, August 12, 2021. NO questions will be accepted or answered verbally. No questions will be accepted or answered after Tuesday, August 10, 2021 8:00 am cut-off date/time.

It is the responsibility of the interested bidder to assure they have received addendum, if any issued, and acknowledge such receipt where indicated.

# SECTION 00 31 13 PRELIMINARY SCHEDULE

# 1.01 GENERAL

A. The following represents the preliminary construction schedule for the Work. This schedule is the current estimate of the Owner to be used for purposes of bidding. All bidders shall include the costs of all overtime, double-shift, or so-called "premium" time that may be necessary to meet this milestone.

# 1.02 PRELIMINARY SCHEDULE

A. Award of Project: September 14, 2021
B. Commencement of Construction: September 20, 2021
C. Substantial Completion: November 30, 2021 END OF SECTION

# SECTION 00 41 13 BID FORM - STIPULATED SUM

#### SINGLE CONTRACT

- PROJECT: CITY OF AURORA WILDER PARK PROMENADE PAVILION FACILITY 350 N. RIVER STREET AURORA, ILLINOIS 60506
- BID TO: CITY OF AURORA 44 EAST DOWNER PLACE AURORA, ILLINOIS 60507
- BID FROM: Corporate Name: Address: City, State, Zip: Telephone No.: Fax No.: Email Address: Contact Person:

#### 1.01 ACCEPTANCE

The undersigned Bidder agrees, if this Bid is accepted, to enter into an agreement with the Owner, in the form included in the Bidding Documents, to perform and furnish the Work as indicated in the Bidding Documents for the Bid Price and within the Bid times indicated in this Bid and in accordance with the terms and conditions of the Contract Documents.

#### 1.02 ACKNOWLEDGMENTS

In submitting this Bid, the Bidder represents that:

- A. This Bid will remain open for acceptance for a period of 90 days from the Bid opening date;
- B. The Owner has the right to reject this Bid;
- C. The Bidder accepts the provisions of the Instructions and Supplementary Instructions to Bidders regarding the disposition of the Bid;
- D. The Bidder agrees to sign and submit the Agreement and other documents required by the Bidding Requirements within 15 days after the Owner's Notice of Award;
- E. The Bidder has examined the complete set of Bidding Documents;
- F. The Bidder has visited the site and become familiar with the general, local, and site conditions;
- G. The Bidder is familiar with Federal, State and Local Laws and Regulations;

- H. The Bidder has correlated the information known to the Bidder; information and observations obtained from visits to the site, reports and drawings identified in the Bidding Documents and additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
- I. This Bid is genuine and not made in the interest of or on behalf of an undisclosed person, firm, or corporation and is not submitted in conformity with an Agreement or rules or group, association, organization, or corporation;
- J. The Bidder has not directly or indirectly induced or solicited another Bidder to submit a false or sham Bid; sought by collusion to obtain for itself an advantage over another Bidder or over the Owner;
- K. The Bidder has received the following Addenda, receipt of which is hereby acknowledged:
  - 1. Addendum No. \_\_\_\_\_Date \_\_\_\_\_
  - 2. Addendum No. \_\_\_\_\_ Date \_\_\_\_\_
  - 3. Addendum No. \_\_\_\_\_Date \_\_\_\_\_

The Bidder understands that, in submitting this Bid, he waives all right to plead any misunderstandings regarding the foregoing.

# 1.03 SINGLE CONTRACT - BASE BID PRICE:

- A. Refer to Section 01 10 00 Summary.
- B. The Bidder will complete the Work of the Project in accordance with the Contract Documents for the following price:
  - 1. Stipulated Sum Bid Price:

(Use Numerals)

(Use Words)

# 1.04 BID BOND

A. The Bidder has attached the required bid security in the form described by Document 00 43 13-Bid Security Form with this Bid.

# 1.05 ALLOWANCES

A. The Bidder has included in the Bid the appropriate allowances as specified in Section 01 21 00 -Allowances.

# 1.06 CONTRACT TIME

A. The Bidder agrees to begin and complete Work as indicated in Document 00 31 13 - Preliminary Schedule.

# 1.07 OTHER BID FORM SUPPLEMENTS

- A. The following additional Documents are attached to and made a condition of this Bid:
  - 1. Document 00 43 14 Bid Form Supplement Bidder's Certification.
  - 2. Document 00 43 15 Bid Form Supplement Bidder's Tax Certification.
  - 3. Document 00 43 16 Bid Form Supplement Apprenticeship or Training Program Certification and Current Signatory Letters.

# 1.08 SIGNATURES

- A. Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 2021.
- B. Type of Firm: (check one)
  - \_\_\_\_\_ Individual
  - \_\_\_\_\_ Partnership
  - \_\_\_\_\_ Corporation
  - \_\_\_\_\_ Joint Venture
- C. Corporate Seal:(SEAL)
- D. Full name of firm: \_\_\_\_\_\_
- E. Authorized Signing Officer: \_\_\_\_\_

Title:

F. Authorized Signing Officer: \_\_\_\_\_

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

# END OF DOCUMENT

# SECTION 00 43 13 BID SECURITY FORM

# 1.01 FORM OF BID BOND

- A. AIA Document A310 (2010 Edition) Bid Bond Form.
- B. The above document may be examined at the Architect/Engineer's office or purchased at the American Institute of Architects, http://www.aia.org/docs.
  END OF DOCUMENT

# SECTION 00 43 14 BID FORM SUPPLEMENT - BIDDER'S CERTIFICATION

1.01 City of Aurora Bidder's Certification attached (1 page). END OF DOCUMENT

#### BIDDER'S CERTIFICATION

I/We hereby certify that:

- A. A complete set of bid papers, as intended, has been received, and that I/We will abide by the contents and/or information received and/or contained herein.
- B. I/We have not entered into any collusion or other unethical practices with any person, firm, or employee of the City which would in any way be construed as unethical business practice.
- C. I/We have adopted a written sexual harassment policy which is in accordance with the requirements of Federal, State and local laws, regulations and policies and further certify that I/We are also in compliance with all other equal employment requirements contained in Public Act 87-1257 (effective July 1, 1993) 775 ILCS 5/2-105 (A).
- D. I/We are in compliance with the most current "Prevailing Rate" of wages for laborers, mechanics and other workers as required by the State of Illinois Department of Labor.
- E I/We operate a drug free environment and drugs are not allowed in the workplace or satellite locations as well as City of Aurora sites in accordance with the Drug Free Workplace Act of January, 1992.
- F. The Bidder is not barred from bidding on the Project, or entering into this contract as a result of a violation of either Section 33E-3 or 33E-4 of the Illinois Criminal Code, or any similar offense of "bid rigging" or "bid rotating" of any state or the United States.
- G. I/We will submit, for all contracts in excess of \$25,000.00, a certificate indicating participation in apprenticeship and training programs approved and registered with the United Sates Department of Labor. Contractor shall check the box indicating that a copy of applicable program certification is attached.

H. I/We will abide by all other Federal, State and local codes, rules, regulations, ordinances and statutes.

| COMPANY NAME                       |                              |  |
|------------------------------------|------------------------------|--|
| ADDRESS                            |                              |  |
| CITY/STATE/ZIP CODE                |                              |  |
| NAME OF CORPORATE/COMPANY OFFICIAL |                              |  |
| TITLE                              | PLEASE TYPE OR PRINT CLEARLY |  |
| AUTHORIZED OFFICIAL SIGNATURE      |                              |  |
| DATE                               | Subscribed and Sworn to      |  |
| TELEPHONE ()                       | Before me this day           |  |
|                                    | of, 2021                     |  |
|                                    |                              |  |

Notary Public

# SECTION 00 43 15 BID FORM SUPPLEMENT - BIDDER'S TAX CERTIFICATION

# 1.01 City of Aurora Bidder's Tax Certification attached (1 page). END OF SECTION

STATE OF ILLINOIS

County of Kane

SS.

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)

#### **BIDDER'S TAX CERTIFICATION**

(BIDDER'S EXECUTING OFFICER), being first duly sworn on oath, deposes and states that all statements made herein are made on behalf of the Bidder, that this despondent is authorized to make them and that the statements contained herein are true and correct.

Bidder deposes, states and certifies that Bidder is not barred from contracting with any unit of local government in the State of Illinois as result of a delinquency in payment of any tax administered by the Illinois Department of Revenue unless Bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax, all as provided for in accordance with 65 ILCS 5/11-42.1-1.

DATED this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2021.

By \_\_\_\_\_\_ (Signature of Bidder's Executing Officer)

(Print name of Bidder's Executing Officer)

(Title)

**ATTEST/WITNESS:** 

By \_\_\_\_\_

Title \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

Notary Public

(SEAL)

#### SECTION 00 43 16 BID FORM SUPPLEMENT - APPRENTICESHIP OR TRAINING PROGRAM CERTIFICATION AND CURRENT SIGNATORY LETTERS

# 1.01 City of Aurora Apprenticeship or Training Program Certification attached (2 pages). END OF SECTION

# Apprenticeship or Training Program Certification

#### **Return with Bid**

#### All contractors are required to complete the following certification:

 $\Box$  For this contract proposal or for all groups in this deliver and install proposal.

□ For the following deliver and install groups in this material proposal:

The City of Aurora policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders' subcontractors to disclose participation in apprenticeship or training programs that are approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

- I. Except as provided in paragraph IV below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.
- II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval is, at the time of such bid, participating in an approved, applicable apprenticeship or training program applicable to the work of the subcontract.
- III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

IV. Except for any work identified above, any bidder or subcontractor that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership. □

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. <u>The City of Aurora requires a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors be included with the bid in order to qualify to bid on the project.</u>

The Bidder must also submit a signed and current dated letter(s) from the <u>certificate holder(s)</u> indicating that the Bidder may use the certificate to meet the above listed requirements for this specific project.

| Bidder:  | By:   |             |
|----------|-------|-------------|
|          |       | (Signature) |
| Address: | Title |             |
#### SECTION 00 52 00 AGREEMENT FORM

#### 1.01 FORM OF AGREEMENT

- A. AIA Document A101, Owner-Contractor Agreement Form Stipulated Sum (2017 Edition), forms the basis of Contract between the Owner and Contractor.
- B. The above document may be examined at the Architect's office or purchased at the American Institute of Architects, http://www.aia.org/contractdocs/index.htm.

#### 1.02 RELATED REQUIREMENTS

- A. Document 00 72 00 General Conditions.
- B. Document 00 73 00 Supplementary Conditions.

#### PART 2 PRODUCTS (NOT USED)

### PART 3 EXECUTION (NOT USED)

### END OF DOCUMENT

# **AIA** Document A101° – 2017

## Standard Form of Agreement Between Owner and Contractor where the basis of

payment is a Stipulated Sum

AGREEMENT made as of the 14th day of September in the year 2021 (In words, indicate day, month and year.)

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

City of Aurora 44 East Downer Place Aurora, Illinois 60506

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

TBD

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

1277 - City of Aurora - Wilder Park Promenade Pavilion Facility 350 N. River Street Aurora, Illinois 60506

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

Kluber, Inc. 10 S. Shumway Avenue Batavia, Illinois 60510

The Owner and Contractor agree as follows.

#### ADDITIONS AND DELETIONS:

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

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

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

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#### TABLE OF ARTICLES

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

#### EXHIBIT A INSURANCE AND BONDS

#### ARTICLE 1 THE CONTRACT DOCUMENTS

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

#### ARTICLE 2 THE WORK OF THIS CONTRACT

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

#### ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

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

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

September 20, 2021

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

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

#### § 3.3 Substantial Completion

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§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work: *(Check one of the following boxes and complete the necessary information.)* 

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[X] By the following date: November 30, 2021

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

Portion of Work

Substantial Completion Date

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

#### ARTICLE 4 CONTRACT SUM

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

#### § 4.2 Alternates

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

Item TBD

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

Price

Item NA

Price

**Conditions for Acceptance** 

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

| tem                            |  |
|--------------------------------|--|
| Section 01 21 00 – Contingency |  |
| Allowance                      |  |

§ 4.4 Unit prices, if any:

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

Price \$20,000

| ltem | Units and Limitations | Price per Unit (\$0.00) |
|------|-----------------------|-------------------------|
| NA   |                       |                         |
|      |                       |                         |

§ 4.5 Liquidated damages, if any: (Insert terms and conditions for liquidated damages, if any.)

None

§ 4.6 Other:

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

Init. 1

#### ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

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

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

See attached 2021 Payment Deadline Schedule – Exhibit E

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than two weeks prior to payment deadline, the Owner shall make payment of the amount certified to the Contractor not later than on the attached schedule. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than the next day listed on the attached schedule. The provisions of the Illinois Local Government Prompt Payment Act, 50ILCS 505/1 shall apply to this contract. Contractor shall submit certified payroll and partial/final waivers of lien with every payment request. (Federal, state or local laws may require payment within a certain period of time.)

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

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

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

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

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

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

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

#### § 5.1.7 Retainage

1

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

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

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Ten Percent (10.0)%

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

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

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

(Insert any other conditions for release of retainage upon Substantial Completion.)

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

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

§ 5.2 Final Payment

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

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

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

#### (Paragraphs deleted) ARTICLE 6 DISPUTE RESOLUTION § 6.1 Initial Decision Maker

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

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#### § 6.2 Binding Dispute Resolution

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

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

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

#### ARTICLE 7 TERMINATION OR SUSPENSION

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

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

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

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

#### ARTICLE 8 MISCELLANEOUS PROVISIONS

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

§ 8.2 The Owner's representative: (*Name, address, email address, and other information*)

Jason Baur City of Aurora 44 East Downer Place Aurora, Illinois 60506

§ 8.3 The Contractor's representative: (Name, address, email address, and other information)

TBD

Init.

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

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#### § 8.5 Insurance and Bonds

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

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

(Paragraphs deleted) § 8.7 Other provisions:

#### ENUMERATION OF CONTRACT DOCUMENTS **ARTICLE 9**

§ 9.1 This Agreement is comprised of the following documents:

- AIA Document A101<sup>TM</sup>–2017, Standard Form of Agreement Between Owner and Contractor .1
- .2 Exhibit A - Insurance and Bonds
- AIA Document A201<sup>™</sup>\_2017, General Conditions of the Contract for Construction .3
- AIA Document E203<sup>TM</sup>–2013, Building Information Modeling and Digital Data Exhibit, dated as .4 indicated below:

(Insert the date of the E203-2013 incorporated into this Agreement.)

NA

.5 Drawings

.6

Init.

1

| Number<br>00 01 15 | Title<br>Drawing Index         | <b>Date</b><br>July 30, 2021 |       |
|--------------------|--------------------------------|------------------------------|-------|
| Specifications     |                                |                              |       |
| Section            | Title                          | Date                         | Pages |
| 01 01 10           | Table of Contents<br>Exhibit C | July 30, 2021                | -     |
| Addenda, if any:   |                                |                              |       |

| Number | Date | Pages |
|--------|------|-------|
| TBD    | TBD  | TBD   |

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

#### Other Exhibits: .8

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

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

[ ] The Sustainability Plan:

|   | Title |                                | Date                   | Pages |       |
|---|-------|--------------------------------|------------------------|-------|-------|
| [ | ]     | Supplementary and other Condit | tions of the Contract: |       |       |
|   | Docu  | ment                           | Title                  | Date  | Pages |

.9 Other documents, if any, listed below:

> (List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201<sup>TM</sup>\_2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

| 00 11 13 | Advertisement for Bids  |
|----------|---|
| 00 21 13 | Instructions to Bidders   |
| 00 31 13 | Preliminary Schedule  |
| 00 41 13 | Bid Form – Stipulated Sum submitted by TBD, Exhibit B                     |
| 00 43 13 | Bid Security Form, Exhibit B  |
| 00 43 14 | Bid Form – Bidder's Certification submitted by TBD, Exhibit B             |
| 00 43 15 | Bid Form – Bidder's Tax Certification submitted by TBD, Exhibit B         |
| 00 43 16 | Bid Form - Apprenticeship or Training Program Cert. and Current Signatory |
|          | Letters submitted by TBD, Exhibit B                                       |
|          | Bid Bond submitted by TBD, Exhibit B                                      |

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

**OWNER** (Signature)

Jolene Coulter, Director of Purchasing (Printed name and title)

**CONTRACTOR** (Signature)

(Printed name and title)

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#### SECTION 00 60 00 PROJECT FORMS

#### 1.01 FORMS OF BONDS AND CERTIFICATES

- A. Performance and Payment Bonds: AIA Document A312 Performance Bond and Payment Bond.
- B. Consents of Surety:
  - 1. AIA Document G707A Consent of Surety to Final Reduction in or Partial Release of Retainage.
  - 2. AIA Document G707 Consent of Surety to Final Payment.
- C. The above documents may be examined at the Architect's office or purchased at the American Institute of Architects, http://www.aia.org/contractdocs/.

### END OF DOCUMENT

#### SECTION 00 72 00 GENERAL CONDITIONS

#### 1.01 FORM OF GENERAL CONDITIONS

- A. The General Conditions applicable to this contract is attached following this page.
- B. AIA Document A201 2017 "General Conditions of the Contract for Construction" is the General Conditions between the Owner and Contractor.
- C. The above document may be examined at the Architect's office or purchased at the American Institute of Architects, http://www.aia.org/contractdocs/index.htm.

#### 1.02 RELATED REQUIREMENTS

A. SECTION 00 73 00 - Supplementary Conditions.

#### 1.03 SUPPLEMENTARY CONDITIONS

A. Refer to Document 00 73 00 for amendments to these General Conditions. END OF DOCUMENT

#### SECTION 00 73 00 SUPPLEMENTARY CONDITIONS

#### 1.01 GENERAL

A. The Supplementary Conditions contain modifications and additions to AIA Document A201 - 2017 "General Conditions of the Contract for Construction". Where a portion of the General Conditions is modified, deleted or voided by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

### 1.02 ARTICLE 1 GENERAL PROVISIONS

- A. § 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS
  - 1. Add new Section 1.2.2.1 as follows:

"§ 1.2.2.1 Sections of Division 1 - General Requirements govern the execution of the Work of all Sections of the specifications."

- B. § 1.5 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE
  - 1. After the first sentence of Section 1.5.1, insert the following:

"These Instruments of Service are the tangible rendering of professional opinions and service for the Owner and are not, therefore, a commodity, product or good. No warranties, express or implied, are made by the Architect to the Contractor concerning those Instruments of Service."

#### 1.03 ARTICLE 2 OWNER

- A. § 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER
  - 1. Delete the third sentence of Section 2.2.1.
  - 2. Delete Section 2.2.5 in its entirety and replace with the following:

"§ 2.2.5 The contractor will be furnished, free of charge, all returned bidding copies of the drawings and project manuals. The Contractor will be furnished as many additional copies as the Contractor may require, at the cost of reproduction."

B. Add new Section 2.5 as follows:

"§ 2.5 OWNER'S REMEDIES NOT EXCLUSIVE

§ 2.5.1 The rights and remedies of Owner stated in this Article 2 shall be in addition to and not in limitation of any other rights of the Owner granted in the Contract Documents or at law or in equity."

### 1.04 ARTICLE 3 CONTRACTOR

- A. § 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTACTOR
  - 1. Delete Section 3.2.1 in its entirety and replace with the following:

"§ 3.2.1 Execution of the Contract by the Contractor is a representation by the Contractor that, prior to the submission of its bid, the Contractor (a) has visited and examined the Project site and is familiar with all of the conditions thereon; (b) has examined the nature, location and character of the general area in which the Project is located, including, without limitation, its climactic conditions, available labor supply, labor costs and available

equipment supply and costs; and (c) has examined the quality and quantity of materials, supplies, tools, equipment, labor and professional services necessary to complete the Work in the manner and within the cost and time frame required by the Contract Documents."

2. Add new Section 3.2.5 as follows:

"§ 3.2.5 Prior to any excavation, the Contractor shall determine the locations of all existing water, gas, sewer, electric, telephone, telegraph, television, irrigation, petroleum pipelines, and other underground utilities and structures. Where the locations of existing underground and surface utilities and structures are indicated, these locations are generally approximate, and all items that may be encountered during the work are not necessarily indicated. The Contractor shall determine the exact locations of all items indicated, and the existence and locations of all items not indicated. Contractor shall be solely responsible for any damage to said facilities and structures and indemnify Architect and Owner."

#### B. § 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

1. Add new Sections 3.3.4 through 3.3.7 as follows:

"§ 3.3.4 The Contractor has the responsibility to ensure that all material suppliers and Subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions and that they provide materials on time. The Contractor shall coordinate its Work, including without limitation, deliveries, storage, installations, and construction utilities with that of all others on the Project. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Contractor shall meet with all others involved, before installation, to plan the most effective method of overall installation.

§ 3.3.5 All manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer, unless herein specified to the contrary.

§ 3.3.6 After commencing the work, the Contractor shall use every precaution to avoid interferences with existing underground and surface utilities and structures, and protect them from damage. The Contractor shall repair or pay for all damage caused by his operations to all existing utility lines, public property, and private property, whether it is below ground or above ground, and he shall settle in total cost of all damage suits which may arise as a result of his operations at no additional costs to the Owner. To avoid unnecessary interferences or delays, the Contractor shall coordinate all utility removals, replacements and construction with the appropriate utility company. The cost of temporarily relocating utilities for convenience of the Contractor, shall be paid by Contractor. § 3.3.7 The Contractor shall establish and maintain benchmarks and all other grades, lines, and levels necessary for the Work, report errors or inconsistencies to the Owner and Architect before commencing Work, and review the placement of the building and permanent facilities on the site with the Owner and Architect after all lines are staked out and before foundation Work is started."

#### C. § 3.4 LABOR AND MATERIALS

1. Delete Section 3.4.2 in its entirety and replace with the following:

"§ 3.4.2 After the Contract has been executed, the Owner and the Architect will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Section 01 6000)."

2. Add new Section 3.4.4 as follows:

\$ 3.4.4 The Contractor and each Subcontractor shall pay not less than the general prevailing rate of hourly wages for work of a similar character in the locality in which the work is performed and not less than general prevailing rate of hourly wages for legal holidays and overtime work in the performance of work under this Contract, as established by the Illinois Department of Labor, pursuant to an act of the General Assembly of the State of Illinois. In accordance with applicable law, Contractor and each Subcontractor shall keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them, and also showing the actual hourly wages paid to each such individual, which record shall be open at all reasonable hours to inspection by the Owner, its officers and agents, and to agents of the Illinois Department of Labor. The Contractor and each Subcontractor hereby agree, jointly and severally, to defend, indemnify and hold harmless the Owner from any and all claims, demands, liens or suits of any kind or nature whatsoever (including suits for injunctive relief) by the Illinois Department of Labor under the Illinois Prevailing Wage Act, or by any laborer, worker or mechanic employed by the Contractor or the Subcontractor who alleges that he has been paid for his services in a sum less than prevailing wage rates required by Illinois law. The Owner agrees to notify the Contractor or Subcontractor of the pendency of any such claim, demand, lien or suit. Contractor must pay prevailing wages in effect at time labor is performed."

- D. § 3.6 TAXES
  - 1. Delete Section 3.6 in its entirety and replace with the following:
    - "§ 3.6 TAXES

The Owner is exempt from the Illinois Use Tax Act and the Retailer's Occupation Tax. Any taxes for which the Owner is not exempt shall be paid by the Contractor."

- E. § 3.7 PERMITS, FEES, NOTICES AND COMPLIANCE WITH LAWS
  - 1. Delete Section 3.7.4 in its entirety.

### F. § 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

1. Delete Section 3.10.1 in its entirety and replace with the following:

"§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall indicate the proposed completion dates for the various subdivisions of the Work, as well as the totality of the Work. The schedule shall be updated every thirty (30) days and submitted to Architect with Contractor's Applications for Payment. Each schedule shall contain a comparison of actual progress with the estimated progress for such point in time stated in the original schedule. If any schedule submitted sets forth a date for Completion for the Work or any phase of the Work beyond the date(s) of Completion established in the Contract (as the same may extended as provided in the Contract Documents), then Contractor shall submit to Architect and Owner for their review and approval a narrative description of the Work to ensure timely completion of the various phases of the Work as well as the totality of the Work. To ensure such timely completion,

Contractor shall take all necessary action including, without limitation, increasing the number of personnel and labor on the Project and implementing overtime and double shifts. In that event, Contractor shall not be entitled to an adjustment in the Contract Sum of the schedule. The Owner may, in its discretion, choose to withhold any payment due the Contractor until an updated schedule is submitted. The Owner's or Architect's failure to object to a submitted schedule that exceeds time limits current under the Contract Documents shall not relieve the Contractor of its obligations to meet the time limits in the Contractor's damages incurred as a result of increased construction time or not meeting the time limits in the Contractor's schedule showing completion in advance of the time limits in the Contract Documents shall not create or infer any rights in favor of the Contractor for acceleration of the Work."

#### G. § 3.18 INDEMNIFICATION

- 1. Delete Section 3.18.1 and replace with the following:
  - a. "§ 3.18.1 To the fullest extent permitted by law, the Contractor shall waive any right of contribution against the Owner and shall indemnify and hold harmless the Owner and the Architect and their officers, officials, employees, volunteers and agents from and against all claims, damages losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs), arising out of or resulting from the performance of the Contractor's work provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom to the extent it is caused in whole or in part by any wrongful or negligent 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. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity which the Owner would otherwise have. The Contractor shall similarly, protect, indemnify and hold and save harmless, the Owner, its officers, officials, employee, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of any provisions of the Contract."
- 2. Add new Section 3.18.1.1 as follows:

"§ 3.18.1.1 The Contractor and every subcontractor expressly waive all so-called Kotecki rights under the Illinois workers' compensation statutes even though Owner has retained all such rights."

#### 1.05 ARTICLE 7 CHANGES IN THE WORK

#### A. § 7.1 GENERAL

1. Add new Section 7.1.4 as follows:

"§ 7.1.4 For adjustments to the Contract Sum based on other than the unit price method, overhead, profit and general conditions combined. The parties shall negotiate reasonable adjustment.

.1 All proposals, except those less than \$200.00, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and

materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall be itemized also. In no case will a change involving over \$200.00 be approved without such itemization."

- B. § 7.3 CONSTRUCTION CHANGE DIRECTIVES
  - 1. In the first sentence of Section 7.3.7, delete the words: "as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount." and replace with the words: "in accordance with Section 7.1.4".
- C. 7.4 MINOR CHANGES IN THE WORK
  - 1. At the end of the paragraph, add the following sentence: "Copies of any such changes will be forwarded in a timely manner to the Owner."

### 1.06 ARTICLE 9 PAYMENTS AND COMPLETION

- A. § 9.3 APPLICATIONS FOR PAYMENT
  - 1. Add new Section 9.3.1.3 as follows:

"§ 9.3.1.3 Until substantial completion, the Owner shall pay 90 percent of the amount due the Contractor on account of progress payments."

2. Add new Section 9.3.2.1 as follows:

"§ 9.3.2.1 In accordance with Section 9.3.2, the Contractor shall be permitted to make written petition to the Owner requesting payment for 75% of the cost of materials and equipment suitably stored off the site at a location agreed upon in writing between the Owner and the Contractor. In order to receive such payment, title to the materials and/or equipment must pass to the Owner; the materials and/or equipment must be stored in a protected, insured facility agreed to by the Owner, with the Owner named as an additional insured; and all storage costs and costs associated with handling and transporting the materials and/or equipment to the Project site must be paid for by the Contractor. Owner in its sole discretion may grant said petition."

- B. § 9.8 SUBSTANTIAL COMPLETION
  - 1. Delete the last sentence of Section 9.8.5 and replace with the following: "The payment shall be sufficient to increase the total payments to 95 percent of the Contract sum, less such amounts as the Architect shall determine for incomplete Work and unsettled claims."
- C. § 9.10 FINAL COMPLETION AND FINAL PAYMENT
  - 1. Delete Section 9.10.4 in its entirety.

### 1.07 ARTICLE 11 INSURANCE AND BONDS

- A. § 11.1 CONTRACTOR'S LIABILITY INSURANCE
  - Delete the semicolon at the end of Clause 11.1.1.1 and append the following: ", including private entities performing work at the site and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for mandatory coverage for the duration of the project;"
  - 2. Delete the semicolon at the end of Clause 11.1.1.2 and append the following: ", or persons or entities excluded by statute from the requirements of Clause 11.1.1.1 but required by the contract documents to provide the insurance required by that clause;"

- 3. Delete the semicolon at the end of Clause 11.1.1.6 and append the following: ", and coverage should be written on a comprehensive automobile policy which will include coverage for owned, non-owned and hired motor vehicles."
- 4. Add new Section 11.1.2.1 as follows:
  - "§ 11.1.2.1 The insurance required by Section 11.1.1 shall be written for not less than the following limits, or greater if required by law:
  - 1) Workers' Compensation:
    - a) State: Statutory
    - b) Applicable Federal (e.g., Longshoremen's): Statutory
    - c) Employer's Liability
      - (1) \$500,000.00 Per Accident
      - (2) \$500,000.00 Disease, Policy Limit
      - (3) \$500,000.00 Disease, Each Employee
  - 2) If written under Comprehensive General Liability Policy Form (including sub-lines specified in Clause 11.1.1.8):
    - a) Bodily Injury:
      - (1) \$1,000,000.00 Per Occurrence
      - (2) \$3,000,000.00 Aggregate Per Project
    - b) Property Damage:
      - (1) \$1,000,000.00 Per Occurrence
      - (2) \$3,000,000.00 Aggregate Per Project
    - c) Bodily Injury and Property Damage combined:
      - (1) \$1,000,000.00 Per Occurrence
      - (2) \$3,000,000.00 Aggregate Per Project
    - d) Personal Injury:
      - (1) \$3,000,000.00 Aggregate Per Project
  - 3) If written under Commercial General Liability Policy Form:
    - a) \$3,000,000.00 General Aggregate Per Project
    - b) \$1,000,000.00 Products Completed Operations Aggregate
    - c) \$1,000,000.00 Personal and Advertising Injury
    - d) \$1,000,000.00 Per Occurrence
    - e) \$ 50,000.00 Fire Damage (any one fire)
    - f) \$ 5,000.00 Medical Expense (any one person)
  - 4) Business Automobile Liability (including owned, non-owned and hired vehicles):
    - a) Bodily Injury:
      - (1) \$1,000,000.00 Per Person
      - (2) \$3,000,000.00 Per Accident
    - b) Property Damage:
      - (1) \$1,000,000.00 Per Occurrence
    - c) Bodily Injury and Property Damage Combined:
      - (1) \$1,000,000.00 Per Occurrence
  - 5) Umbrella Excess Liability:
    - a) \$2,000,000.00 over Primary Insurance
    - b) \$2,000,000.00 Retention for Self-Insured Hazards Each Occurrence"
- 5. Add new Sections 11.1.2.2 through 11.1.2.6 as follows:

"§ 11.1.2.2 Liability insurance should be written on the comprehensive general liability basis, and shall include, but not be limited to the following sub-lines:

- 1) Premises and Operations including x, c, u coverages (explosion, collapse, underground).
- 2) Products and Completed Operations.
- 3) Independent Contractor's Protective.
- 4) Broad Form Comprehensive General Liability Endorsement:
  - a) Contractual Liability, including contractors obligation under Section 3.18.
  - b) Personal Injury & Advertising Injury Liability
  - c) Premises Medical Payments
  - d) Host Liquor Law Liability
  - e) Fire Legal Liability Real Property
  - f) Broad Form Property Damage Liability (including completed Operations)
  - g) Incidental Medical Malpractice Liability
  - h) Non-owned Watercraft Liability
  - i) Limited Worldwide Liability
  - j) Additional Persons Insured, including employees for personal and advertising injury.
  - k) Extended Bodily Injury Liability
  - I) Automatic Coverage Newly acquired Organizations (90 days)

§ 11.1.2.3 If liability insurance is written under the new simplified form Commercial General Liability, the above listed coverages should be included.

§ 11.1.2.4 If the General Liability coverages are provided by a Commercial General Liability Policy on a claims-made basis, the policy date or retroactive date shall predate the contract; the termination date of the policy shall be no earlier than the termination date of coverages required to be maintained after final payment, certified in accordance with Section 9.10.2, and extended period endorsement "Supplemental Tail", must be purchased."

§ 11.1.2.5 All policies of insurance purchased or maintained in fulfillment of Section 11.1.1 shall name the Owner and Architect as additional insureds on a primary and noncontributory basis thereunder.

§ 11.1.2.6 The Contractor shall provide the Owner with the Original policy and shall furnish the Architect with a memorandum copy of said policy. The additional insureds on the Contractor's Liability policy shall be:

City of Aurora 44 E. Downer Place Aurora, Illinois 60507

KLUBER, INC. 10 S. Shumway Ave. Batavia, Illinois 60510

- 6. In Section 11.1.3:
  - a. In the second sentence, delete the words "Section 11.1" and replace with the words "Article 11".
  - b. Append the following sentence to the end of the Section:

"On the Certificate of Insurance, delete in the cancellation provision the following words, "Endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives"."

7. Add new Section 11.1.3.1 as follows:

"§ 11.1.3.1 Failure of the Owner to demand any certificate, policy, endorsement or other evidence of full compliance with the insurance requirements of Article 11 or failure of the Owner to identify a deficiency from evidence that is provided shall not be construed as a waiver of the Contractor's obligation to maintain such insurance. The Contractor agrees that the obligation to provide the insurance required by these documents is solely its responsibility and that this is a requirement which cannot be waived by any conduct, action, inaction or omission by the Owner."

8. Add new Section 11.1.5 as follows:

"§ 11.1.5 Nothing contained in the insurance requirements of the Contract Documents is to be construed as limiting the liability of the Contractor, the liability of any Subcontractor or any tier or either of their respective insurance carriers. The Owner, does not in any way, represent that the coverages or limits of insurance specified is sufficient or adequate to protect the Owner, Contractor, Architect, or any Subcontractor's interests or liabilities but are merely at minimums. The obligation of the Contractor, the Architect, and any Subcontractor of any tier to purchase insurance, shall not, in any way, limit their obligations to the Owner in the event the Owner should suffer an injury or loss in excess of the amount recoverable through insurance, or any loss or portion of the loss which is not covered by either the Contractor's or any Subcontractor's insurance."

- B. § 11.3 PROPERTY INSURANCE
  - 1. In the last sentence of Section 11.3.1, after "Owner, " insert "the Architect,".
  - 2. Delete Section 11.3.1.2. in its entirety.
  - 3. Delete Section 11.3.1.3. in its entirety.
  - 4. Delete Section 11.3.3 in its entirety.
  - 5. Delete Section 11.3.5 in its entirety.
  - 6. Delete Section 11.3.6 in its entirety.
  - 7. Delete Section 11.3.7 in its entirety.
  - 8. In the third sentence of Section 11.3.9 delete the phrase ", or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor.".
- C. § 11.4 PERFORMANCE AND PAYMENT BOND
  - 1. Delete Section 11.4.1 in its entirety and replace with the following:
    - "§ 11.4.1 The Contractor, before commencing the Work, shall furnish a Performance Bond and a Labor and Material Bond. The Performance Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the faithful performance of the obligation of the Contract Documents, and the Labor and Material Payment Bond shall be in an amount equal to 100% of the full amount of the Contract Sum as security for the payment of all persons performing labor and furnishing materials in connections with the Contract Documents. Such bonds shall be on standard AIA Documents, issued by the American Institute of Architects, shall be issued by a surety satisfactory to the Owner, and shall name the Owner as primary co-obligee.

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

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

2. Add new Section 11.4.3 as follows:

"§ 11.4.3 Whenever the Contractor shall be and is declared by Owner to be in default under the Contract, the Surety and the Contractor are each responsible to make full payment to the Owner or any and all extra Work incurred by the Architect as a result of the Contractor's default, and to pay to Owner all attorney's fees and court costs incurred by Owner as a result of the Contractor's default, and in protecting Owner's rights under the Agreement to remedy Contractor's default."

3. Add new Section 11.4.4 as follows:

"§ 11.4.4 The Contractor shall (i) furnish all Surety Company's bonds through Surety Company's local agents approved by and/or as directed by Owner; (ii) fully covered and guarantee with said bond the faithful performance and completion of the entire Contract, including without limitation, the faithful performance of prevailing wage requirements; and (iii) guarantee with said bond payment in all cases by the Contractor or by the Surety Company for all labor performed, material and supplies furnished with the entire Work in the Contract. Said Bond shall remain in full force and effect during the entire period of all general guarantees given by the Contractor with the Contract as called for in the Specifications and Contract, except in cases where other bonds are specifically called for in the specifications and Contract in connection with special guarantees."

D. Add new Section 11.5 as follows:

"
§ 11.5 OWNERS AND CONTRACTORS PROTECTIVE LIABILITY INSURANCE § 11.5.1 The Contractor shall purchase and maintain Owners and Contractors Protective (OCP) liability insurance covering the Owner's contingent liability for claims which may arise from operations under the Contract and that will protect the Owner and the Architect and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work specifically pertaining to the Illinois Structural Works Act, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (2) is cause in whole or in part by any negligent act of omission of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, including by assignment, regardless of whether or not it is caused in part by a party to whom insurance is afforded pursuant to this paragraph. The minimum Per Occurrence and Aggregate limits of liability purchased for such coverage shall be equal, respectively, to the Per Occurrence and Aggregate limits required for the Contractor's Liability insurance, as listed in Section 11.1.2.1, above.

§ 11.5.2 In any and all claims against the Owner or the Architect or any of their agents or employees by any employee of the Contractor, any other contractor assigned to the Contractor,

Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the insurance obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation Acts, disability benefit acts or other employee benefit acts.

§ 11.5.3 The insurance obligations of the Contractor under this Section shall not extend to the liability of the Architect, his agents or employees arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications or (2) the giving of or failure to give directions or instruction by the Architect, his agents or employees provided that such giving or failure to give is the primary cause of the injury damage.
§ 11.5.4 The Contractor shall provide the Owner with the Original policy and shall furnish the Architect with a memorandum copy of said policy. The named insured on the Owners and Contractors Protective (OCP) liability policy shall be:

City of Aurora 44 E. Downer Place Aurora, Illinois 60507

KLUBER, INC. 10 S. Shumway Ave. Batavia, Illinois 60510

#### 1.08 ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

- A. § 12.2.2 AFTER SUBSTANTIAL COMPLETION
  - 1. Delete Sections 12.2.2.1, 12.2.2.2 and 12.2.2.3 in their entireties and replace with the following:

"§ 12.2.2.1 In addition ot the Contractor's obligations under Section 3.5, if, within two years 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 an 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 to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the 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 2.4.

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

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

- 2. Delete Section 12.2.2.5 in its entirety and replace with the following:
  - a. "§ 12.2.2.5 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 two-year period for correction of Work as described in Section 12.2 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 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."

### 1.09 ARTICLE 13 MISCELLANEOUS PROVISIONS

- A. § 13.6 INTEREST
  - 1. Delete Section 13.6 in its entirety. All references to interest payments throughout the Contract Documents are hereby voided.
- B. Add Section 13.8 as follows:

"§ 13.8 REGULATIONS

§ 13.8.1 The Contractor or Subcontractor warrants that he is familiar with and he shall comply with Federal, State and local laws, statutes, ordinances, rules and regulations and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of the Contract including without limitation Workmen's Compensation Laws, minimum salary and wage statutes and regulations, laws with respect to permits and licenses and fees in connection therewith, laws regarding maximum working hours. No plea of misunderstanding or ignorance thereof will be considered.

§ 13.8.2 Whenever required, the Contractor or Subcontractor shall furnish the Architect and Owner with satisfactory proof of compliance with said Federal, State and local laws, statutes, ordinances, rules, regulations, orders, and decrees.

§ 13.8.3 Each bidder shall carefully examine the Occupational Safety and health Act as issued by the Federal Register (OSHA), and the specific regulations governing procedures, techniques, safety precautions, equipment design, and the configuration of the same as required under this Act and each bidder agrees as evidenced by his submission of a bid to comply with all terms of the Act and to perform and complete in a workmanlike manner all work required in full compliance with said Act.

§ 13.8.4 Each bidder agrees as evidenced by his submission of a bid to comply with all terms of the Equal Employment Opportunity Clause of the Illinois Fair Employment Practices Commission.

§ 13.8.5 At all times Contractor shall remain in compliance with the Illinois Public Works Employment Discrimination Act (775 ILCS 10/1, et seq.,) and the Illinois Human Rights Act (775 ILCS 5/2-101, et seq.,) and in addition shall at all times comply with Section 2-105 of the Illinois Human Rights Act.

§ 13.8.6 By execution of this Contract, the Contractor understands, represents and warrants to the Owner that the Contractor and its Subcontractors (for which the Subcontractor takes responsibility to insure that they comply with the above-mentioned Acts) are in compliance with all requirements provided by the Acts set forth in Article 13 and that they will remain in

compliance for the entirety of the Work. A violation of any of the Acts set forth in this Article is cause for the immediate cancellation of the Contract. However, any forbearance or delay by the Owner in canceling this Contract shall not be considered as, and does not constitute, Owner's consent to such violation and a waiver of any rights the Owner may have, including without limitation, cancellation of this Contract."

C. Add Section 13.9 as follows:

### "§ 13.9 PREVAILING WAGES

§ 13.9.1 The Contractor and all Subcontractors shall pay prevailing wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with the Prevailing Wage Act (820 ILCS 130/0.01 et seq.). The Contractor shall prominently post the current schedule of prevailing wages at the Contract site and shall notify immediately in writing all of its Subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to the Contractor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of the Contractor and not at the expense of the Owner. The change order shall be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. The Contractor shall be solely responsible for maintain accurate records as required by the prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work. § 13.9.2 The Contractor shall provide certified payroll records in accordance with the requirements established by the Prevailing Wage Act(820 ILCS 130/5) as amended 8/10/2005 by Illinois Public Act 94-0515."

### 1.10 ARTICLE 15 CLAIMS AND DISPUTES

### A. § 15.1.6 CLAIMS FOR CONSEQUENTIAL DAMAGES

- 1. Delete Section 15.1.6 in its entirety.
- B. § 15.2 INITIAL DECISION
  - 1. Delete Section 15.2.1 in its entirety and replace with the following:

"§ 15.2.1 Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9 and 11.3.10, may be referred to the Initial Decision Maker for action. A decision by the Initial Decision Maker shall not be binding and shall not be required as a condition precedent to litigation." **END OF SECTION** 

#### SECTION 00 73 40 LABOR AND WAGE REQUIREMENTS

#### 1.01 LABOR AND WAGE REQUIREMENTS

- A. In the employment and use of labor, the Contractor and his subcontractors shall conform to the Illinois Statutory requirements regarding labor and wages.
- B. Wage Guidelines:
  - Prevailing Rate of Wages: All Contracts for the work herein are subject to the provisions of the Illinois Prevailing Wages Act (820 ILCS 130/et seq.) providing for the payment of prevailing rate of wages to all Laborers, Workmen, and Mechanics engaged on the work, which such provisions shall be applicable to all subcontractors and material men as well as the Contractor. The Owner may at any time inquire of the Contractor as to rates of wages being paid employees of the Contractor, any subontractor or material men, whereupon such information shall be promptly provided to the Owner.
    - a. The terms "generally prevailing rate of hourly wages," "generally prevailing rate of wages," or "prevailing rate of wages," mean the hourly cash wage plus fringe benefits for health and welfare, insurance, vacations, and pensions paid generally, in the locality in which the work is being performed, to employees engaged in work of a similar character on public works.
  - The Contractor shall not pay less than the rates of wages prevailing the District as determined by the Illinois Department of Labor to all Laborers, Mechanics and Workers performing any work under this Contract.
    - a. Only such laborers, workers and mechanics as are directly employed by the Contractor or Subcontractors in actual construction work on the site of the Project, and laborers, workers and mechanics engaged in the transportation of materials and equipment to or from the site, but not in cluding the transportation by sellers and suppliers or the manufacture or processing of materials or equipment, in the execution of the Work shall be deemed to be employed on the Project for purposes of compliance with the Illinois Statutory requirements.
  - 3. The Contractor shall require all of its Subcontractors to comply with the requirements of the preceding paragraphs, which shall be incorporated in each and every subcontract for all or any portion of the Work.
  - 4. The Contractor will cooperate and coordinate his work with any subcontractors that the Owner has working on the Project at the same time.
  - 5. Future increases to wage rates and material cost over the course of the contract time will not be born by the Owner. Contractor to include in his Base Bid.
- C. Certified Payroll Requirements: For all of the Contractor's, its Subcontractors and Sub-subcontractors' laborers, mechanics and other workers employed on the Project, the Contractor shall submit monthly, and with each Application For Payment, certified payroll records in accordance with State of Illinois, Department of Labor, 8/10/2005 Prevailing Wage Act Changes; "Certified Payroll Requirements" (Public Act 94-0515).

### 1.02 WAGE DETERMINATION SCHEDULE

A. Contact the Illinois Department of Labor for the most recent revisions to the Prevailing Rate of Wages.

### END OF DOCUMENT

#### SECTION 01 10 00 SUMMARY

#### PART 1 GENERAL

#### 1.01 PROJECT

- A. Project Name: CITY OF AURORA WILDER PARK PROMENADE PAVILION FACILITY.
- B. Owner's Name: City of Aurora.
- C. Architect/Engineer's Name: Kluber Architects + Engineers.
- D. The Project consists of the new open air pavilion at Wilder Park.

#### 1.02 CONTRACT DESCRIPTION

A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 52 00 - Agreement Form.

#### 1.03 WORK BY OWNER

A. Owner has awarded a contract for the Site Work of surrounding area which has begun.

#### 1.04 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

#### 1.05 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.
- B. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Work by Others.
  - 3. Work by Owner.
- C. Provide access to and from site as required by law and by Owner:
  - 1. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Time Restrictions:
  - 1. Per City Ordinance.

#### 1.06 WORK SEQUENCE

A. Coordinate construction schedule and operations with Owner.

#### PART 2 PRODUCTS - NOT USED

#### PART 3 EXECUTION - NOT USED

#### END OF SECTION

#### SECTION 01 20 00 PRICE AND PAYMENT PROCEDURES

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

#### 1.02 RELATED REQUIREMENTS

- A. Section 00 52 00 Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Section 00 72 00 General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 00 73 00 Supplementary Conditions: Percentage allowances for Contractor's overhead and profit.

#### 1.03 SCHEDULE OF VALUES

- A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect/Engineer for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values to the Architect/Engineer at earliest possible date, but no later than 14 days prior to first Pay Request Meeting.
  1. After review by the Architect/Engineer, revise and resubmit Schedule as directed.
- E. Format: Utilize the Table of Contents of this Project Manual as a format for the listing of the Work.
- F. Identify as separate line items on the Schedule the costs for the following items: Bonds, Insurance, Site Mobilization, each Allowance scheduled in Section 01 21 00, Construction Submittals, General Conditions, Overhead And Profit, Demonstration And Training, and Closeout Submittals.
- G. Submit Schedule of Values in sufficient detail for the Architect/Engineer to use in evaluation of Applications for Payment.
  - 1. Itemize the cost of the work of:
    - a. Contractor's own labor forces.
    - b. Subcontractors.
    - c. Suppliers of products and equipment.
- H. Revise Schedule of Values to list approved Change Orders, with each Application For Payment.

#### 1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.
- C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect/Engineer for approval.
- D. Forms filled out by hand will not be accepted.
- E. For each item, provide a column for listing each of the following:
  - 1. Item Number.
  - 2. Description of work.
  - 3. Scheduled Values.
  - 4. Previous Applications.
  - 5. Work in Place and Stored Materials under this Application.
  - 6. Authorized Change Orders.
  - 7. Total Completed and Stored to Date of Application.
  - 8. Percentage of Completion.
  - 9. Balance to Finish.
  - 10.Retainage.
- F. Execute certification by signature of authorized officer.
- G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- I. Submit one pencil/draft copy of each Application for Payment to the Architect/Engineer at least 7 days prior to the due date for the submission of the Application.
- J. Contractor or Architect/Engineer may schedule a Pay Request Meeting to review the pencil/draft copy of the Application for agreement with the progress of the Work.
- K. After receipt of Architect/Engineer's review comments, submit three final copies, signed and notarized, of each Application for Payment.
- L. Include the following with the application:
  - 1. Transmittal letter as specified for submittals in Section 01 30 00.
  - 2. Construction progress schedule, revised and current as specified in Section 01 30 00.
  - 3. Contractor's partial waiver of lien in the amount of the Application for Payment as well as trailing partial waivers of lien for subcontractors and suppliers who were included in the previous Application for Payment, to the extent of that payment.
    - a. When an Application shows completion of a subcontractor or supplier item, submit a final or full waiver for that item.
    - b. Waivers of lien shall be submitted on forms and executed in a manner acceptable to the Owner.

- 4. Certified payroll records for the Contractor and for all Subcontractors and Sub-subcontractors employed on the Project who performed work on the Project during the Payment Period.
  - a. Contractor shall assemble his and all subcontractor and sub-subcontractor records prior to submitting each Application for Payment.
  - b. Applications for Payment submitted without certified payroll records or with incomplete certified payroll records will result in payment being delayed until the Contractor complies fully with the requirements set forth in the preceding paragraphs.
- 5. Affidavits attesting to products or equipment suitablly stored off-site in a bonded warehouse. Payments for materials stored off-site shall be conditioned upon submission of bills of sale, applicable insurance, and any other documentation or procedures satisfactory to the Owner to establish the Owner's title to such materials, or otherwise protect the Owner's interest.
- M. When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

### 1.05 MODIFICATION PROCEDURES

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to Contract Documents.
- B. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect/Engineer will issue instructions directly to Contractor.
- C. For other required changes, Architect/Engineer will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
  - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
  - 2. Promptly execute the change.
- D. For changes for which advance pricing is desired, Architect/Engineer will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within ten (10) days.
- E. Contractor may propose a change by submitting a request for change to Architect/Engineer, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on work by separate or other contractors. Document any requested substitutions in accordance with Section 01 60 00.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
  - 1. For change requested by Architect/Engineer for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
  - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect/Engineer.

- 3. For pre-determined unit prices and quantities, the amount will based on the fixed unit prices.
- 4. For change ordered by Architect/Engineer without a quotation from Contractor, the amount will be determined by Architect/Engineer based on the Contractor's substantiation of costs as specified for Time and Material work.
- G. Substantiation of Costs: Provide full information required for evaluation.
  - 1. On request, provide the following data:
    - a. Quantities of products, labor, and equipment.
    - b. Taxes, insurance, and bonds.
    - c. Overhead and profit.
    - d. Justification for any change in Contract Time.
    - e. Credit for deletions from Contract, similarly documented.
  - 2. Support each claim for additional costs with additional information:
    - a. Origin and date of claim.
    - b. Dates and times work was performed, and by whom.
    - c. Time records and wage rates paid.
    - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
  - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- H. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- I. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- J. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- K. Promptly enter changes in Project Record Documents.

#### 1.06 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
  - 1. All closeout procedures specified in Section 01 70 00.
  - 2. Procedures outlined in Article 9 of the General Conditions as amended.
- C. The submittal of Final Waiver of Lien and the acceptance of the final payment by the Contractor shall be held to be a waiver of any and all claims against the Owner arising from, out of, or in any connection with the Contract.

#### PART 2 PRODUCTS - NOT USED

### PART 3 EXECUTION - NOT USED

### END OF SECTION

#### SECTION 01 21 00 ALLOWANCES

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Contingency allowance.

#### 1.02 RELATED REQUIREMENTS

A. Section 01 20 00 - Price and Payment Procedures: Additional payment and modification procedures.

#### 1.03 CONTINGENCY ALLOWANCE

- A. Contractor's costs for products, delivery, installation, labor, payroll, taxes and equipment rental will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from the Contingency Allowance only by Change Order.
- C. Bond, insurance, overhead and profit fees on Change Orders paid out of Contingency Allowances will not be permitted. The Contractor must carry in its Base Bid OH&P costs on Contingency Allowance funds expenditures.
- D. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

#### 1.04 ALLOWANCES SCHEDULE

A. Contingency Allowance: Include in the Base Bid the stipulated sum of \$20,000.00 for use upon Owner's instructions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

#### END OF SECTION

#### SECTION 01 30 00 ADMINISTRATIVE REQUIREMENTS

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review, information, and project closeout.
- F. Architect/Engineer-provided CAD files.
- G. Number of copies of submittals.
- H. Requests for Interpretation (RFI) procedures.
- I. Submittal procedures.

#### 1.02 RELATED REQUIREMENTS

- A. Section 00 72 00 General Conditions: Dates for applications for payment.
- B. Section 01 60 00 Product Requirements: General product requirements.
- C. Section 01 70 00 Execution and Closeout Requirements: Additional coordination requirements.
- D. Section 01 78 00 Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

#### 1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 01 70 00 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

#### PART 2 PRODUCTS - NOT USED

#### PART 3 EXECUTION

#### 3.01 PRECONSTRUCTION MEETING

- A. Architect/Engineer will schedule a meeting after Notice of Award.
- B. Attendance Required:
  - 1. Owner.
  - 2. Architect/Engineer.
  - 3. Contractor.

#### C. Agenda:

- 1. Execution of Owner-Contractor Agreement.
- 2. Submission of executed bonds and insurance certificates.

- 3. Submission of list of subcontractors, schedule of values, and progress schedule.
- 4. Submission of initial Submittal schedule.
- 5. Designation of personnel representing the parties to Contract and Architect/Engineer.
- 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
- 7. Scheduling.

### 3.02 PROGRESS MEETINGS

- A. General Contractor will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- B. Attendance Required:
  - 1. Contractor.
  - 2. Owner.
  - 3. Architect/Engineer.
  - 4. Contractor's superintendent.
- C. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.
  - 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 RFIs log and status of responses.
  - 7. Review of off-site fabrication and delivery schedules.
  - 8. Maintenance of progress schedule.
  - 9. Corrective measures to regain projected schedules.
  - 10. Planned progress during succeeding work period.
  - 11. Maintenance of quality and work standards.
  - 12. Effect of proposed changes on progress schedule and coordination.
  - 13. Other business relating to Work.
- D. Record minutes and distribute copies within two days after meeting to participants, with one copy to Architect/Engineer, Owner, participants, and those affected by decisions made.

### 3.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 10 days after date of the Agreement, submit preliminary schedule.
- B. If preliminary schedule requires revision after review, submit revised schedule within 7 days.
- C. Submit updated schedule with each Application for Payment.

### 3.04 REQUESTS FOR INTERPRETATION (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.
  - 2. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- 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. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
    - a. Approval of submittals (use procedures specified elsewhere in this section).
    - b. Approval of substitutions (see Section 01 60 00 Product Requirements)
    - c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
  - 2. 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.
  - 3. 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. They will be returned without a response, with an explanatory notation.
- 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. Owner's, Architect/Engineer's, and Contractor's names.
  - 3. Discrete and consecutive RFI number, and descriptive subject/title.
  - 4. Issue date, and requested reply date.
  - 5. 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).
  - 6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
  - 7. 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. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
  - 1. Indicate current status of every RFI. Update log promptly and on a regular basis.
  - 2. Note dates of when each request is made, and when a response is received.
  - 3. Highlight items requiring priority or expedited response.
  - 4. Highlight items for which a timely response has not been received to date.
- H. Review Time: Architect/Engineer will respond and return RFIs to Contractor within five 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.
- I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
  - 1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
  - 2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
  - 3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
  - 4. Notify Architect/Engineer within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

#### 3.05 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/Engineer for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. 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.

### 3.06 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/Engineer's knowledge as contract administrator or for Owner.

### 3.07 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 for Owner's benefit during and after project completion.

### 3.08 ARCHITECT/ENGINEER-PROVIDED CAD FILES

- A. After the execution of the Contract, Architect/Engineer will provide, free of charge, upon receipt of a properly completed and signed request utilizing "Electronic Data Transfer Consent Form" at the end of this Specification Section, CAD files depicting graphic information for the project as follows:
  - 1. Architectural Floor Plans: Column grid, walls, floors, stairs, doors, windows, room numbers, ceiling grid, mechanical diffusers, plumbing fixtures, sprinkler heads (if depicted in Bid Documents) and lights.
- B. Contractor acknowledges and accepts that the Architectural Floor Plans do not contain structural, mechanical, electrical, plumbing, fire protection and other building systems information depicted in the Bidding Documents. Examples of information not contained in these files include, but are not limited to, title blocks, keynotes, schedules, mechanical ductwork and equipment, electrical device symbols, circuit numbers and home runs, plumbing equipment, piping runs and riser diagrams, and architectural/engineering text or details. No other CAD files, data or information will be provided.
- C. Only requests from Prime Contractors will be honored. Subcontractors must obtain the files from their respective Prime Contractors.
- D. In submitting a request, Contractor acknowledges that:
  - 1. Architect/Engineer bears no responsibility for the data or its transmission,
  - 2. Use of the data by the Contractor or his subcontractors in no way relieves the Contractor of his obligations under the Contract,
  - 3. Contractor is solely liable for any and all claims arising from any and all products generated by the Contractor or its Subcontractors employing the data,
- 4. Contractor and its Subcontractors have a limited, non-exclusive license to use the data solely in connection with the Work of the Project, and that
- 5. Architect/Engineer retains all rights, including copyright, to the data.

# 3.09 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
  - 1. Small Size Sheets: Not Larger Than 11 x 17 inches. Submit two (2) paper copies, one of which will be retained by Architect/Engineer. Contractor shall make his own copies from the original returned by the Architect.
    - a. Contractor's Option: In lieu of paper copies indicated above, submit in Adobe PDF electronic file format via email. Architect will return a reviewed copy in Adobe PDF electronic file format via email. Create PDFs at native size and right-side up; illegible files will be rejected.
  - Large Size Sheets: Larger Than 11 x17 inches; 36 x 48 inches maximum. Submit two (2) paper copies, one of which will be retained by Architect/Engineer. Electronic file format (PDF or other) is NOT acceptable. Contractor shall make his own copies from the original returned by the Architect.
- B. Documents for Information: Submit one copy.
- C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect/Engineer.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.

# 3.10 SUBMITTAL PROCEDURES

- A. General Requirements:
  - 1. Use a separate transmittal for each item.
  - 2. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
  - 3. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
  - 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 not be acknowledged, reviewed, or returned.
  - 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/Engineer at business address.
    - b. Send submittals in electronic format via email to Architect/Engineer.
  - 6. Schedule submittals to expedite the Project, and coordinate submission of related items.
    - a. For each submittal for review, allow 7 days excluding delivery time to and from the Contractor.
    - b. For sequential reviews involving Architect/Engineer's consultants, Owner, or another affected party, allow an additional 3 days.

- c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect/Engineer'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. Provide space for Contractor and Architect/Engineer review stamps.
- 9. When revised for resubmission, identify all changes made since previous submission.
- 10. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
- 11. 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.
- 12. Submittals not requested will be recognized, and will be returned "Not Reviewed",
- B. Product Data Procedures:
  - 1. Submit only information required by individual specification sections.
  - 2. Collect required information into a single submittal.
  - 3. 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.
  - 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.

# 3.11 SUBMITTAL REVIEW

- A. Submittals for Review: Architect/Engineer will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect/Engineer will acknowledge receipt and review. See below for actions to be taken.
- C. Architect/Engineer's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
- D. Architect/Engineer's and consultants' actions on items submitted for review:
  - 1. Authorizing purchasing, fabrication, delivery, and installation:
    - a. "Approved", or language with same legal meaning.
    - b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
      - 1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
    - c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
  - 2. Not Authorizing fabrication, delivery, and installation:
    - a. "Revise and Resubmit".

- 1) Resubmit revised item, with review notations acknowledged and incorporated.
- b. "Rejected".
  - 1) Submit item complying with requirements of Contract Documents.
- E. Architect/Engineer's and consultants' actions on items submitted for information:
  - 1. Items for which no action was taken:
    - a. "Received" to notify the Contractor that the submittal has been received for record only.
  - 2. Items for which action was taken:
    - a. "Reviewed" no further action is required from Contractor.



# **ELECTRONIC DATA TRANSFER CONSENT FORM**

Project Name: WILDER PARK PROMINADE PAVILION FACILITY 350 N. RIVER STREET AURORA, ILLINOIS 60506

Project No.: 19-130-1277

Owner: CITY OF AURORA

Your Work:

KLUBER, INC. (hereinafter referred to as "Kluber") an Illinois corporation, is providing electronic data to you solely at your request and for your convenience. By accepting and opening any of the electronic data files, you agree that Kluber bears no liability for the data or its transmission to you and that you are solely liable for any and all claims referring or relating to any and all products you, or your Subcontractors, may generate with the data.

You acknowledge that you have a limited non-exclusive license to use the information solely in connection with your work on the project captioned above, and that Kluber retains all rights, including copyright, to the data.

| Acknowledged by: |                |        |             |  |
|------------------|----------------|--------|-------------|--|
|                  | (Printed Name) |        | (Signature) |  |
| Company:         |                |        |             |  |
| Date:            |                | Email: |             |  |

Architectural Floor Plans are transmitted for the contractors' use as backgrounds for shop drawings and as-built drawings, and, as such, contain graphic information for column grid, walls, floors, stairs, doors, windows, room numbers, ceiling grid, lights, diffusers and sprinkler heads where indicated on Bid Documents. Plans <u>do not</u> contain title blocks, keynotes, schedules, mechanical ductwork and equipment, electrical device symbols, circuit numbers and home runs, plumbing equipment, piping runs and riser diagrams, and architectural/engineering text and details. Plans depict <u>entire</u> floors and are not formatted, partial plans as depicted in the Bidding Documents. Files are provided in R2013 .DWG format.)

Bloomington Office 2401 East Washington Street Bloomington, Illinois 61704 309.430.6460 Chicago Office 222 South Riverside Street Plaza Chicago, Illinois 60606 312.667.5670 Aurora Office 10 South Shumway Avenue Batavia, Illinois 60510 630.406.1213

#### SECTION 01 40 00 QUALITY REQUIREMENTS

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Submittals.
- B. Sequencing and scheduling of the work with testing and inspections.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Tolerances.
- F. Manufacturers' field services.
- G. Defect Assessment.

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 41 00 Regulatory Requirements.
- B. Section 01 42 00 References.
- C. Section 01 60 00 Product Requirements: Requirements for material and product quality.

#### 1.03 REFERENCE STANDARDS

- A. ASTM E1155 Standard Test Method for Determining F(F) Floor Flatness and F(L) Floor Levelness Numbers; 1996 (Reapproved 2008).
- B. ASTM C39/C39M Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2010.
- C. ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens); 2008.
- D. ASTM C143/C143M Standard Test Method for Slump of Hydraulic-Cement Concrete; 2010a.
- E. ASTM C173/C173M Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2010b.
- F. ASTM C67 Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile; 2009.
- G. ASTM C140 Standard Test Methods of Sampling and Testing Concrete Masonry Units and Related Units; 2011.
- H. ASTM C780 Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2010.
- I. ASTM C1148 Standard Test Method for Measuring the Drying Shrinkage of Masonry Mortar; 1992a (Reapproved 2008).

- J. ASTM C1314 Standard Test Method for Compressive Strength of Masonry Prisms; 2010.
- K. ASTM C1357 Standard Test Methods for Evaluating Masonry Bond Strength; 2009.
- L. ASTM E514 Standard Test Method for Water Penetration and Leakage Through Masonry ; 2009.
- M. ASTM E165 Standard Test Method for Liquid Penetrant Examination; 2009.

## 1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Design Data: Submit for Architect/Engineer's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the contract documents, or for Owner's information.
- C. Test Reports: After each test/inspection, promptly submit two copies of report to Architect/Engineer and to Contractor.
  - 1. Include:
    - a. Date issued.
    - b. Project title and number.
    - c. Name of inspector.
    - d. Date and time of sampling or inspection.
    - e. Identification of product and specifications section.
    - f. Location in the Project.
    - g. Type of test/inspection.
    - h. Date of test/inspection.
    - i. Results of test/inspection.
    - j. Compliance with Contract Documents.
    - k. When requested by Architect/Engineer, provide interpretation of results.
- D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect/Engineer, in quantities specified for Product Data.
  - 1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
  - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect/Engineer.
- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

## 1.05 REGULATORY REQUIREMENTS - See Section 01 41 00

## 1.06 REFERENCES AND STANDARDS - See Section 01 42 00

### 1.07 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform specified testing and inspection, except where specifically indicated otherwise in the Schedule of Tests and Inspections.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

### 1.08 SEQUENCING AND SCHEDULING

- A. Soils Testing: As each portion of the Work is completed, notify testing laboratory to perform compaction and moisture density tests.
  - 1. Test compaction of existing and placed materials no more than seven (7) days prior to placement of the next portion of the Work, and only when no rain is expected between the time of the test and the placement of the next portion of the Work.
  - 2. Proceed promptly with additional portions of the Work only after satisfactory results have been verified in writing.

# PART 2 PRODUCTS - NOT USED

# PART 3 EXECUTION

### 3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

### 3.02 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

# 3.03 TESTING AND INSPECTION

- A. Testing Agency Duties:
  - 1. Provide qualified personnel at site. Cooperate with Architect/Engineer and Contractor in performance of services.
  - 2. Perform specified sampling and testing of products in accordance with specified standards.
  - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
  - 4. Promptly notify Architect/Engineer and Contractor of observed irregularities or non-compliance of Work or products.
  - 5. Perform additional tests and inspections required by Architect/Engineer.
  - 6. Submit reports of all tests/inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
  - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
  - 2. Agency may not approve or accept any portion of the Work.
  - 3. Agency may not assume any duties of Contractor.
  - 4. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
  - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
  - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
  - Provide incidental labor and facilities:
    - a. To provide access to Work to be tested/inspected.
    - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    - c. To facilitate tests/inspections.
    - d. To provide storage and curing of test samples.
  - 4. Notify Architect/Engineer and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
  - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
  - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect/Engineer.
- E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

# 3.04 SCHEDULE OF TESTS AND INSPECTIONS:

A. Concrete Testing and Inspection: Owner's Testing Service.

- 1. Section 03 20 00 Concrete Reinforcing:
  - a. Inspect reinforcement for bar size, quantity, cover and support prior to casting concrete.
- 2. Section 03 30 00 Cast-in-Place Concrete:
  - a. Compressive strength tests: ASTM C172 and ASTM C39.
    - 1) Samples for each day's pour greater than 5 cubic yards. Sample every 50 cubic yards.
    - 2) Sample shall consist of 4 specimens. Break schedule: 1 at 7 days, 2 at 28 days and final held for possible future break if directed by Architect/Engineer.
    - 3) Slump: ASTM C 143; one for each set of test cylinders.
    - 4) Air Content: ASTM C 231.
    - 5) Concrete Temperature: ASTM C 1064.
    - 6) Unit Weight: ASTM C 567.
    - 7) Take one additional cylinder during cold weather, cured on site under same conditions as the concrete it represents.
  - b. Measure F(F) and F(L) in accordance with ASTM E1155, within 48 hours after slab installation; report both composite overall values and local values for each measured section.
- B. Soils Testing: Owner's Testing Service.
  - 1. Section 31 23 16 Excavation, Section 31 23 16.13 Trenching, and Section 31 23 23 Fill:
    - a. Test and inspect subgrades and each fill or backfill layer.
    - b. Building pad and footing subgrades to verify design bearing capacities. Perform testing in accordance with project soils report.
    - c. Test compaction of soils ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937 as applicable.
    - d. Paved and building slab areas subgrade at least one test for every 2,500 square feet.
    - e. Foundation backfill compaction of initial and final layer. Perform at least one test every 200 feet.

# 3.05 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

# 3.06 DEFECT ASSESSMENT

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. If, in the opinion of Owner, it is not practical to remove and replace the work, Owner will direct an appropriate remedy or adjust payment.

#### SECTION 01 41 00 REGULATORY REQUIREMENTS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. General.
- B. Definitions.
- C. Quality Assurance.
- D. Regulatory Requirements.

### 1.02 RELATED SECTIONS

A. Section 01 42 00 - References.

#### 1.03 GENERAL

- A. Comply with all applicable laws, rules, regulations, codes and ordinances.
- B. If the Contractor observes that the Contract Documents may be at variance with specified codes, notify the Architect/Engineer immediately. Architect/Engineer shall issue all changes in accordance with the General Conditions.
- C. It shall not be the Contractor's primary responsibility to make certain that the Contract Documents are in accordance with all applicable laws, rules and regulations, however, when the Contractor performs work knowing or having reason to know that the work in question is contrary to applicable laws, rules, and regulations, and fails to notify the Architect/Engineer, the Contractor shall pay all costs arising therefrom.

### 1.04 DEFINITIONS

- A. Definitions:
  - 1. Codes: Codes are statutory requirements, rules or regulations of governmental entities.
  - 2. Standards: Standards are requirements that have been established as accepted criteria, set general consent.

### 1.05 QUALITY ASSURANCE

- A. The Architect/Engineer has designed the project to applicable code requirements and has copies of said codes available for the Contractor's inspection.
- B. The Contractor shall:
  - 1. Ensure that copies of codes and standards referenced herein or specified in individual specifications sections are available to Contractor's personnel, agents, and Sub-Contractors.
  - 2. Ensure that Contractor's personnel, agents, and Sub-Contractors are familiar with the workmanship and requirements of applicable codes and standards.

#### 1.06 REGULATORY REQUIREMENTS

- A. Source and Requirements: Verify amendments with local code officials.
  - 1. Local code requirements:

- a. ICC International Building Code, 2015 Edition.
- b. ICC International Mechanical Code, 2015 Edition.
- c. ICC International Fire Code, 2015 Edition.
- d. ICC International Fuel and Gas Code, 2015 Edition.
- e. ICC International Existing Building Code, 2015 Edition.
- f. National Electrical Code, 2014 Edition.
- 2. State code requirements:
  - a. Capital Development Board (CDB):
    - 1) 2009 ICC ANSI A117.1 and its references to the 2010 Americans with Disabilities Act.
    - 2) 2018 Illinois Accessibility Code.
    - 3) Illinois Energy Conservation Code (ICC International Energy Conservation Code, 2018 Edition, with State of Illinois modifications.
  - b. Illinois Department of Labor (IDOL): Safety Glazing Materials Act Illinois Revised Statutes, chap. 111 1/2, paragraph 3101, et seq.
  - c. Illinois Department of Public Health (IDPH):
    - 1) 2014 Illinois Plumbing Code (Illinois Administrative Code, Title 77, Chapter I, Subchapter r, Part 890).
  - d. Illinois Environmental Protection Agency (IEPA):
    - 1) Air-Pollution Standards.
    - 2) Noise Pollution Standards.
    - 3) Water Pollution Standards.
    - 4) Public Water Supplies
    - 5) Solid Waste Standards.
    - 6) Illinois Recommended Standards for Sewage Works (Illinois Administrative Code, Title 35, Subtitle C, Chapter II, Part 370).
  - e. Illinois State Fire Marshal (OSFM):
    - 1) Boiler & Pressure Vessel Safety Code (Illinois Administrative Code, Title 44, Chapter I, Part 120).
    - 2) Illinois Rules & Regulations for Fire Prevention & Safety (as amended).
    - 3) Gasoline and Volatile Oils (Illinois Revised Statutes, chap. 17 1/2, paragraph 31, et seq.).
- 3. Information and Requirements for Utility Services: Local utility companies.

#### PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

#### SECTION 01 42 00 REFERENCES

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Drawing symbols, abbreviations and acronyms.
- B. Definitions of terms used throughout the Contract Documents.
- C. Explanation of specification format and content.
- D. Requirements relating to referenced standards.
- E. Applicability of referenced standards.
- F. List of industry organizations and certain of their respective documents.

#### 1.02 DRAWING SYMBOLS AND CONVENTIONS

- A. Abbreviations and graphic symbols are defined on the General Notes, Symbols & Abbreviations sheet of the drawings.
- B. Generally, symbols used on the mechanical and electrical drawings conform to those recommended by ASHRAE, though, where appropriate, these symbols are supplemented by more specific symbols as recommended by ASME, ASPE, or the IEEE.

#### 1.03 DEFINITIONS

- A. Where the terms "indicated", "noted", "scheduled", "shown", or "specified" are used it is to help locate the reference; no limitation on location is intended except as specifically noted.
- B. Where the terms "directed", "requested", "authorized", "approved", are used as in "directed by the Architect/Engineer", no implied meaning shall be construed to extend the Architect/Engineer's responsibilities into the Contractor's purview of construction supervision.
- C. Where the term "approved" is used in conjunction with the Architect/Engineer's action on submittals, requests or applications it is limited to the duties of the Architect/Engineer as described in the Agreement, and the General and Supplemental Conditions of the Contract. Such use of the term "approval" shall not limit or release the Contractor from his responsibility to fulfill Contract requirements.
- D. Where the term "regulations" is used it means all applicable statutes, laws, ordinances, and orders issued by authorities having jurisdiction, as well as construction industry standards, rules, or conventions that address performance of the Work.
- E. Where the term "furnish" is used it means supply, deliver, and unload to the construction site ready for assembly and incorporation into the Work.
- F. Where the term "install" is used it is meant to describe operations at the job site to include unloading, assembling, placing, anchoring, finishing, protecting, cleaning and all other similar operations required to fully incorporate an item into the Work.
- G. Where the term "provide" is used it means "furnish and install" as defined above.

H. The "Project Site" is the space available to the Contractor for performance of construction activities. The Project Site may be for the exclusive use of the Contractor and his activities or may be used in conjunction with others with others performing other construction or related activities on the Project. The Extent of the Project Site is indicated on the drawings.

## 1.04 SPECIFICATION FORMAT AND CONTENT

- A. These Specifications are based on the Construction Specification Institute's 49 Division format and numbering system.
- B. Language used in the Specifications and other Contract Documents is an abbreviated type. Implied words and meanings will appropriately interpreted.
- C. Requirements expressed in imperative and streamlined language are to be performed by the Contractor. At certain locations in the text, subjective language may be used to describe responsibilities that must be fulfilled indirectly by the Contractor or others.
  - 1. Whenever a colon (:) is used within a sentence or phrase, it shall be construed to mean the words "shall be".
- D. Use of certain terms such as "carpentry" is not intended to imply that certain activities must be performed by accredited or unionized individuals of a corresponding generic name. The Specifications do, however, require that certain construction activities shall be performed by specialists who are recognized experts in the operations to be performed. Specialists shall be used for said activities, however the final responsibility for fulfilling the requirements of the Contract remains the Contractor's.

### 1.05 QUALITY ASSURANCE

- A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue specified in this section, except where a specific date is established by applicable code.
- C. Obtain copies of standards when required by the Contract Documents.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from the Architect/Engineer before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Architect/Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

### 1.06 APPLICABILITY OF INDUSTRY STANDARDS

A. Construction industry standards shall have the same force and effect as if bound or copied directly in the Contract Documents, except where more stringent requirements are specified. All such applicable standards are made a part of the Contract Documents by reference.

- 1. Where compliance with two or more standards are referenced and conflicting requirements for quality or quantities occur, comply with the more stringent requirements. Refer questions regarding apparently conflicting standards to the Architect for a decision before proceeding.
- 2. The standard of quality or quantity levels specified, shown, or referenced shall be the minimum to be provided or performed. Refer questions regarding standards of minimum quality or quantity to the Architect before proceeding.

# 1.07 CONSTRUCTION INDUSTRY ORGANIZATIONS AND DOCUMENTS

- A. AABC -- ASSOCIATED AIR BALANCE COUNCIL
- B. AAMA -- AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
- C. ACI -- AMERICAN CONCRETE INSTITUTE INTERNATIONAL
- D. ADC -- AIR DIFFUSION COUNCIL
- E. AGA -- AMERICAN GAS ASSOCIATION
- F. ANSI -- AMERICAN NATIONAL STANDARDS INSTITUTE
- G. APA -- APA THE ENGINEERED WOOD ASSOCIATION
- H. ASCA -- ARCHITECTURAL SPRAY COATERS ASSOCIATION
- I. ASHRAE -- AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.
- J. ASME -- THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS 1. ASME A17.1 - Safety Code for Elevators and Escalators; 2004.
- K. ASTM -- AMERICAN SOCIETY FOR TESTING AND MATERIALS
- L. AWI -- ARCHITECTURAL WOODWORK INSTITUTE
- M. AWPA -- AMERICAN WOOD-PRESERVERS' ASSOCIATION
- N. BHMA -- BUILDERS HARDWARE MANUFACTURERS ASSOCIATION
- O. CISCA -- CEILINGS & INTERIOR SYSTEMS CONSTRUCTION ASSOCIATION
- P. CPSC -- CONSUMER PRODUCTS SAFETY COMMISSION
- Q. CRI -- CARPET AND RUG INSTITUTE
- R. CTI -- COOLING TECHNOLOGY INSTITUTE
- S. DHI -- DOOR AND HARDWARE INSTITUTE
- T. ESD -- ELECTROSTATIC DISCHARGE ASSOCIATION
- U. FM -- FACTORY MUTUAL RESEARCH CORPORATION
- V. GA -- GYPSUM ASSOCIATION
- W. GANA -- GLASS ASSOCIATION OF NORTH AMERICA
- X. GREENSEAL -- GREEN SEAL

- Y. ICC -- INTERNATIONAL CODE COUNCIL, INC.
- Z. IEEE -- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
- AA. ISO -- INTERNATIONAL STANDARDS ORGANIZATION
- AB. MPI -- MASTER PAINTERS INSTITUTE (MASTER PAINTERS AND DECORATORS ASSOCIATION)
- AC. NAAMM -- THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
- AD. NCMA -- NATIONAL CONCRETE MASONRY ASSOCIATION
- AE. NEBB -- NATIONAL ENVIRONMENTAL BALANCING BUREAU
- AF. NECA -- NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
- AG. NELMA -- NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION, INC.
- AH. NEMA -- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- AI. NFPA -- NATIONAL FIRE PROTECTION ASSOCIATION
- AJ.NGA -- NATIONAL GAS ASSOCIATION
- AK. NPCA -- NATIONAL PAINT AND COATINGS ASSOCIATION
- AL. NRCA -- NATIONAL ROOFING CONTRACTORS ASSOCIATION
- AM. PCA -- PORTLAND CEMENT ASSOCIATION
- AN. PIMA -- POLYISOCYANURATE INSULATION MANUFACTURERS ASSOCIATION
- AO. SDI -- STEEL DOOR INSTITUTE
- AP. SGCC -- SAFETY GLAZING CERTIFICATION COUNCIL
- AQ. SIGMA SEALED INSULATING GLASS MANUFACTURERS ASSOCIATION (See IGMA)
- AR. SMACNA -- SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION, INC.
- AS. SSPC -- THE SOCIETY FOR PROTECTIVE COATINGS
- AT. SWRI -- SEALANT, WATERPROOFING AND RESTORATION INSTITUTE
- AU. UL -- UNDERWRITERS LABORATORIES INC.
- AV. USG -- UNITED STATES GYPSUM
  - 1. USG (HB) Gypsum Construction Handbook; Seventh Edition.
- AW. USGBC -- U. S. GREEN BUILDING COUNCIL
- AX. WWPA -- WESTERN WOOD PRODUCTS ASSOCIATION

### 1.08 UNITED STATES GOVERNMENT AND RELATED AGENCIES/DOCUMENTS

A. CFR -- CODE OF FEDERAL REGULATIONS

- B. CPSC -- CONSUMER PRODUCTS SAFETY COMMISSION
- C. EPA -- ENVIRONMENTAL PROTECTION AGENCY
- D. FS -- FEDERAL SPECIFICATIONS AND STANDARDS (General Services Administration)
- E. GSA -- U.S. GENERAL SERVICES ADMINISTRATION
- F. USGS -- UNITED STATES GEOLOGICAL SURVEY

# 1.09 STATE GOVERNMENT AND RELATED AGENCIES/DOCUMENTS

- A. CDB -- ILLINOIS CAPITAL DEVELOPMENT BOARD
- B. IDOL -- ILLINOIS DEPARTMENT OF LABOR
- C. IDPH -- ILLINOIS DEPARTMENT OF PUBLIC HEALTH
- D. IEPA -- ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
- E. OSFM -- OFFICE OF THE ILLINOIS STATE FIRE MARSHAL.

# PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

#### 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 fencing.
- 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. Water supply, consisting of connection to existing facilities.
- B. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
- C. Use trigger-operated nozzles for water hoses, to avoid waste of water.

# 1.03 TELECOMMUNICATIONS SERVICES

- A. Telecommunications services shall include:
  - 1. One (1) mobile cellular telephone for each of Contractor's and any Subcontractor's field personnel.

### 1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

### 1.05 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 .
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

#### 1.06 FENCING

- A. Construction: Commercial grade chain link fence.
- B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

#### 1.07 SECURITY

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

#### 1.08 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 Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.

### 1.09 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. Remove trash from site periodically.
- 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.

### 1.10 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.

# PART 2 PRODUCTS - NOT USED

# PART 3 EXECUTION - NOT USED

#### SECTION 01 60 00 PRODUCT REQUIREMENTS

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Procedures for Owner-supplied products.
- F. Maintenance materials, including extra materials, spare parts, tools, and software.

#### 1.02 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

### PART 2 PRODUCTS

#### 2.01 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. Designed, manufactured, and tested in accordance with industry standards.

### 2.02 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, or equal to or superior product as approved by Architect in accordance with Section L of the Instruction to Bidders.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for equal to or superior to substitution for any manufacturer not named.

### 2.03 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location directed by Owner's representative; obtain Owner's signature on receipt for delivery prior to final payment. Submit signed receipts with Closeout Submittals.

#### PART 3 EXECUTION

#### 3.01 SUBSTITUTION LIMITATIONS

- A. Substitutions Prior To Bid Opening: Architect/Engineer will consider a written request for substitution provided that such request is received at least seven (7) days prior to the Bid opening date. Requests received after that time will not be considered.
  - 1. If a request is approved, the Architect/Engineer will issue and appropriate addendum not less than three (3) days prior to the Bid opening date.
- B. Substitutions After Notice of Award: Architect/Engineer and Owner will consider a request for substitution only under one or more of the following conditions:
  - 1. Substitution is required for compliance with final interpretation of code requirements or insurance regulations.
  - 2. Specified product is not available through no fault of the Contractor.
  - 3. Specified product is not compatible with other specified materials/equipment.
  - 4. Manufacturer will not certify or warranty specified product as required.
  - 5. Owner shall have final approval of any substitutions requested after notice of award in accordance with Section 3.01B.
- C. A request for substitution 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.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. 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.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
  - 5. Agrees to reimburse Owner and Architect/Engineer for review or redesign services associated with re-approval by authorities having jurisdiction ove the Project.
- D. Substitutions of products or product characteristics/components/accessories will not be considered when they are indicated or implied on Contractor's submittals, without separate written request, or when acceptance will require revision to the Contract Documents, whether rejection of said subsititutions is expressly identified by Architect/Engineer on Contractor's submittals or not.

#### 3.02 OWNER-SUPPLIED PRODUCTS

- A. See Section 01 10 00 Summary for identification of Owner-supplied products.
- B. Owner's Responsibilities:

- 1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
- 2. Arrange and pay for product delivery to site.
- 3. On delivery, inspect products jointly with Contractor.
- 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
- 5. Arrange for manufacturers' warranties, inspections, and service.
- C. Contractor's Responsibilities:
  - 1. Review Owner reviewed shop drawings, product data, and samples.
  - 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
  - 3. Handle, store, install and finish products.
  - 4. Repair or replace items damaged after receipt.
  - 5. Make final connections to Owner-provided equipment, and test equipment.

# 3.03 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

# 3.04 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.

- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.



# SUBSTITUTION REQUEST FORM

| Project Name: | WILDER PARK PROMINADE PAVILION FACILITY |
|---------------|---|
| Project No.:  | 19-130-1277                             |
| Owner:        | CITY OF AURORA                          |

SPECIFIED ITEM:

Specification Section Page Paragraph

Description

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION:

Attached data includes project description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents which the proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

- 1. The proposed substitution does not affect dimensions shown on drawings.
- 2. The undersigned will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.
- The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
- 4. Maintenance and service parts will be locally available for the proposed substitution.

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

|                              |  | For Use By The Architect/Engineer:  |   |
|------------------------------|--|---|---|
| Printed Name                 | Date   |   | Accepted As Noted   |
|                              |  | □ Not Accepted □  | Received Too Late   |
| Firm                         |  | Ву:   |   |
| Telephone                    |  | Date:   |   |
| Email<br>Attachments (list): |  | Remarks:  |   |
|                              | Bloomington Office<br>2401 East Washington Street<br>Bloomington, Illinois 61704<br>309.430.6460 | Chicago Office<br>222 South Riverside Street Plaza<br>Chicago, Illinois 60606<br>312.667.5670 | Aurora Office<br>10 South Shumway Avenue<br>Batavia, Illinois 60510<br>630.406.1213 |

#### SECTION 01 61 16 VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Requirements for VOC-Content-Restricted products.
- B. Requirement for installer certification that they did not use any non-compliant products.

#### 1.02 RELATED REQUIREMENTS

- A. Section 01 30 00 Administrative Requirements: Submittal procedures.
- B. Section 01 33 29.07 Prohibited Content Installer Certification: Form for certifying that no non-compliant products were used.
- C. Section 01 60 00 Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.

### 1.03 DEFINITIONS

- A. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
  - 1. Interior paints and coatings applied on site.
  - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
- B. Interior of Building: Anywhere inside the exterior weather barrier.
- C. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- D. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

### 1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.
- C. Installer Certifications Regarding Prohibited Content: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of installer's products, or 2) that such products used comply with these requirements.

### 1.05 QUALITY ASSURANCE

- A. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
  - 1. Evidence of Compliance: Acceptable types of evidence are:

- a. Report of laboratory testing performed in accordance with requirements.
- b. Published product data showing compliance with requirements.
- c. Certification by manufacturer that product complies with requirements.
- B. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

# PART 2 PRODUCTS

## 2.01 MATERIALS

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. VOC-Content-Restricted Products: VOC content not greater than required by the following:
  - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
  - 2. Aerosol Adhesives: GreenSeal GS-36.
  - 3. Joint Sealants: SCAQMD 1168 Rule.
  - 4. Paints and Coatings: Each color; most stringent of the following:
    - a. 40 CFR 59, Subpart D.
    - b. SCAQMD 1113 Rule.
    - c. CARB (SCM).

# PART 3 EXECUTION

# 3.01 FIELD QUALITY CONTROL

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

#### 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.
- C. Pre-installation meetings.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Demonstration and instruction of Owner personnel.
- G. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

### 1.02 RELATED REQUIREMENTS

- A. Section 01 10 00 Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 30 00 Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 01 50 00 Temporary Facilities and Controls: Temporary exterior enclosures.
- D. Section 01 50 00 Temporary Facilities and Controls: Temporary interior partitions.
- E. Section 01 77 00 Closeout Procedures: Additional requirements for Project Closeout.
- F. Section 01 78 00 Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.

#### 1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2019.

### 1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities.

### 1.05 PROJECT CONDITIONS

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
  - 1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.

- 2. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.
- C. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
  - 1. Minimize amount of bare soil exposed at one time.
  - 2. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
  - 3. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
  - 4. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- D. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
  - 1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
  - 2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
  - 3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.
- E. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
- F. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.
- G. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

### 1.06 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 3 EXECUTION

#### 2.01 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.

#### 2.02 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.

### 2.03 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/Engineer four 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. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect/Engineer, Owner, participants, and those affected by decisions made.

# 2.04 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect/Engineer of any discrepancies discovered.

- C. Contractor shall locate and protect survey control and reference points.
- D. Control datum for survey is that established by Owner provided survey.
- E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- F. Promptly report to Architect/Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect/Engineer.
- H. Utilize recognized engineering survey practices.
- I. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Grid or axis for structures.
  - 2. Building foundation, column locations, ground floor elevations.
- J. Periodically verify layouts by same means.
- K. Maintain a complete and accurate log of control and survey work as it progresses.
- L. On completion of foundation walls and major site improvements, prepare a certified survey illustrating dimensions, locations, angles, and elevations of construction and site work.

## 2.05 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. 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.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

### 2.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

#### 2.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.
- G. 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.
- H. Prohibit traffic from landscaped areas.
- I. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

#### 2.08 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
- B. Use cleaning materials that are nonhazardous.
- C. Clean surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces.
- D. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

### 2.09 CLOSEOUT PROCEDURES

- A. See Section 01 77 00 for additional requirements.
- B. Make submittals that are required by governing or other authorities.1. Provide copies to Architect/Engineer and Owner.
- C. Notify Architect/Engineer when work is considered ready for Architect/Engineer's Substantial Completion inspection.

- D. 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/Engineer's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect/Engineer's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect/Engineer.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- G. Notify Architect/Engineer when work is considered finally complete and ready for Architect/Engineer's Substantial Completion final inspection.
- H. Complete items of work determined by Architect/Engineer listed in executed Certificate of Substantial Completion.

#### **SECTION 01 77 00** CLOSEOUT PROCEDURES

#### PART 1 GENERAL

#### 1.01 SECTION INCLUDES:

- A. Substantial Completion Procedures.
- B. Final Completion Procedures.

#### 1.02 RELATED REQUIREMENTS:

A. Section 01 78 00 - Closeout Submittals.

### 1.03 SUBSTANTIAL COMPLETION PROCEDURES

- A. Substantial Completion Procedures will be in accordance with the General Conditions of the Contract for Construction, Article 9.8 and include the following:
  - 1. When the Work or a portion of the Work is considered to be substantially complete, the Contractor inspects the project and prepares a comprehensive list of outstanding items to be completed or corrected, Initial Punch List.
  - 2. Contractor submits notice of Substantial Completion.
  - 3. Contractor completes items on the Initial Punch List.
  - 4. Architect/Engineer inspects the project to verify substantial completion and prepares a Final Punch List.
  - 5. Architect/Engineer prepares Certificate of Substantial Completion, acceptance is required by Owner and Contractor

### 1.04 FINAL COMPLETION PROCEDURES

- A. Final Completion Procedures will be in accordance with the General Conditions of the Contract for Construction, Article 9.10, and include the following:
  - 1. When items on Initial and Final Punch Lists are complete, the Contractor submits notice of final completion and final application for payment.
  - 2. Contractor submits Final Closeout Submittals as specified in Section 01 78 00.
  - 3. Architect inspects project and verifies the Work is acceptable and conforms with the Contract Documents.
  - 4. Architect processes final application for payment and closeout submittals.

### 1.05 CORRECTION PERIOD

- A. Correction Period commences on the date of Substantial Completion and expires two years from that date.
- B. Owner: document non-conforming or defective work over course of Correction Period. Notify Contractor in writing of nonconforming or defective work. Copy Architect/Engineer.
  - 1. Life safety issues requiring immediate corrective work: Contact Contractor for action.
- C. Post Construction Walk Through:
  - 1. Time: eleven months after the date of Substantial Completion convene a meeting on site.
  - 2. Attendees: Architect/Engineer, Owner's Representative, End User and Maintenance Staff.

- 3. Minimum Agenda:
  - a. Review Owner's list of non-conforming or defective work.
  - b. Conduct a walk through of the building and grounds
  - c. Prepare a list of additional non-conforming or defective work items.
- 4. Architect/Engineer:
  - a. Prepare written report of findings within two weeks of meeting.
  - b. Notify Contractor of impending corrective work requiring action.
  - c. Monitor execution of corrective Work.

#### PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTION - NOT USED.

#### 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 RELATED REQUIREMENTS

- A. Section 01 30 00 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Section 01 70 00 Execution and Closeout Requirements: Contract closeout procedures.
- C. Individual Product Sections: Specific requirements for operation and maintenance data.
- D. Individual Product Sections: Warranties required for specific products or Work.

### 1.03 SUBMITTALS

- A. Project Record Documents: Submit documents to Architect/Engineer with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect/Engineer will review draft and return one copy with comments.
  - 2. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of all document sets as required prior to final submission.
  - 3. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  - 2. 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.

### 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. Addenda.

- 4. Change Orders and other modifications to the Contract.
- 5. Reviewed shop drawings, product data, and samples.
- 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- 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 or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish first floor datum.
  - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 4. Field changes of dimension and detail.
  - 5. Details not on original Contract drawings.

### 3.02 OPERATION AND MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

# 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. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. 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. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- D. Prepare data in the form of an instructional manual.
- E. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- F. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- G. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect/Engineer, Consultants, Contractor and subcontractors, with names of responsible parties.
- H. 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.
- I. 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.
- J. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- K. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- L. Arrangement of Contents: Organize each volume in parts as follows:
  - 1. Project Directory.
  - 2. Table of Contents, of all volumes, and of this volume.
  - 3. Operation and Maintenance Data: Arranged by system, then by product category. a. Source data.
    - b. Product data, shop drawings, and other submittals.
- c. Operation and maintenance data.
- d. Field quality control data.
- e. Photocopies of warranties and bonds.
- 4. Design Data: To allow for addition of design data furnished by Architect/Engineer or others, provide a tab labeled "Design Data" and provide a binder large enough to allow for insertion of at least 20 pages of typed text.
  - a. Operating instructions.
  - b. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.

### 3.05 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. 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.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- F. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- G. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

### END OF SECTION

### SECTION 03 10 00 CONCRETE FORMING AND ACCESSORIES

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
- B. Openings for other work.
- C. Form accessories.
- D. Form stripping.

## 1.02 RELATED REQUIREMENTS

- A. Section 03 20 00 Concrete Reinforcing.
- B. Section 03 30 00 Cast-in-Place Concrete.

## 1.03 REFERENCE STANDARDS

- A. ACI 117 Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 301 Specifications for Structural Concrete; 2016.
- C. ACI 318 Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).
- D. ACI 347R Guide to Formwork for Concrete; 2014, with Errata (2017).
- E. PS 1 Structural Plywood; 2009.

## 1.04 DESIGN REQUIREMENTS

A. Design, engineer and construct formwork, shoring and bracing to conform to design and code requirements; resultant concrete to conform to required shape, line and dimension.

## 1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 347, ACI 301, and ACI 318.

### PART 2 PRODUCTS

### 2.01 FORMWORK - GENERAL

- A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.
- B. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.
- C. Chamfer outside corners of beams, joists, columns, and walls.
- D. Comply with applicable State and local codes with respect to design, fabrication, erection, and removal of formwork.

E. Comply with relevant portions of ACI 347R, ACI 301, and ACI 318.

# 2.02 WOOD FORM MATERIALS

A. Form Materials: At the discretion of the Contractor.

## 2.03 FORMWORK ACCESSORIES

- A. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.
  - 1. Composition: Colorless mineral oil-based compound.
  - 2. Do not use materials containing diesel oil or petroleum-based compounds.
- B. Filler Strips for Chamfered Corners: Rigid plastic type; 3/4 x 3/4 inch size; maximum possible lengths.
- C. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

# 3.02 ERECTION - FORMWORK

- A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- D. Align joints and make watertight. Keep form joints to a minimum.
- E. Obtain approval before framing openings in structural members that are not indicated on drawings.
- F. Provide fillet and chamfer strips on external corners of exposed corners.
- G. Coordinate this section with other sections of work that require attachment of components to formwork.
- H. If formwork is placed after reinforcement, resulting in insufficient concrete cover over reinforcement, request instructions from Architect/Engineer before proceeding.

# 3.03 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

# 3.04 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items that will be cast directly into concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.
- D. Install accessories in accordance with manufacturer's instructions, so they are straight, level, and plumb. Ensure items are not disturbed during concrete placement.
- E. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

## 3.05 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
  - 1. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
  - 2. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

## 3.06 FORMWORK TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

# 3.07 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and to verify that supports, fastenings, wedges, ties, and items are secure.
- B. Do not reuse wood formwork more than 2 times for concrete surfaces to be exposed to view. Do not patch formwork.

## 3.08 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- C. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.

## END OF SECTION

### SECTION 03 20 00 CONCRETE REINFORCING

### PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Reinforcing steel for cast-in-place concrete.
- B. Supports and accessories for steel reinforcement.

### 1.02 RELATED REQUIREMENTS

- A. Section 03 10 00 Concrete Forming and Accessories.
- B. Section 03 30 00 Cast-in-Place Concrete.

### 1.03 REFERENCE STANDARDS

- A. ACI 301 Specifications for Structural Concrete; 2016.
- B. ACI 318 Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).
- C. ACI SP-66 ACI Detailing Manual; 2004.
- D. ASTM A82/A82M Standard Specification for Steel Wire, Plain, for Concrete Reinforcement; 2007.
- E. ASTM A615/A615M Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2018, with Editorial Revision.
- F. WWR-500- Manual of Standard Practice; Structural Welded Wire Reinforcement; Wire Reinforcement Institute; latest edition.
- G. CRSI (DA4) Manual of Standard Practice; 2009.
- H. CRSI (P1) Placing Reinforcing Bars; 2011.

### 1.04 SUBMITTALS

A. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.

### 1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301 and ACI 318.

## PART 2 PRODUCTS

### 2.01 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
  - 1. Deformed billet-steel bars.
  - 2. Unfinished.
- B. Steel Welded Wire Reinforcement (WWR): Plain type; ASTM A1064/A1064M.
  - 1. Form: Flat Sheets.

- 2. WWR Style: 6 x 6 W2.9 x W2.9.
- C. Reinforcement Accessories:
  - 1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch.
  - 2. Chairs, Bolsters, Bar Supports, Spacers: Factory made wire bar supports sized and shaped for adequate support of reinforcement during concrete placement.
  - 3. Provide stainless steel components for placement within 1-1/2 inches of weathering surfaces.

# 2.02 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) Manual of Standard Practice.
- B. Welding of reinforcement is not permitted.
- C. Locate reinforcing splices not indicated on drawings at point of minimum stress.
  - 1. Review locations of splices with Architect/Engineer.

# PART 3 EXECUTION

# 3.01 PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position. Reinforcing "pull-up" during placement of concrete not acceptable.
- B. Do not displace or damage vapor barrier.
- C. Accommodate placement of formed openings.
- D. Conform to applicable code for concrete cover over reinforcement.

# 3.02 FIELD QUALITY CONTROL

- A. An independent testing agency, as specified in Section 01 40 00, will inspect installed reinforcement for conformance to contract documents before concrete placement.
- B. Provide free access to concrete operations at project site and cooperate with the appointed firm. END OF SECTION

### SECTION 03 30 00 CAST-IN-PLACE CONCRETE

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Slabs on grade.
- B. Concrete footings and piers.
- C. Joint devices and accessories associated with concrete work.
- D. Concrete curing.

## 1.02 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION:

A. Anchor bolts and setting plates: Section 05 12 00 - Structural Steel.

## 1.03 RELATED REQUIREMENTS

- A. Section 03 10 00 Concrete Forming and Accessories.
- B. Section 03 20 00 Concrete Reinforcing.
- C. Section 07 92 00 Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

## 1.04 REFERENCE STANDARDS

- A. ACI 117 Specifications for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- B. ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; 1991 (Reapproved 2009).
- C. ACI 301 Specifications for Structural Concrete; 2016.
- D. ACI 304R Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- E. ACI 305R Guide to Hot Weather Concreting; 2010.
- F. ACI 306R Guide to Cold Weather Concreting; 2016.
- G. ACI 308R Guide to External Curing of Concrete; 2016.
- H. ACI 318 Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2018).
- I. ASTM C33/C33M Standard Specification for Concrete Aggregates; 2018.
- J. ASTM C94/C94M Standard Specification for Ready-Mixed Concrete; 2019a.
- K. ASTM C150/C150M Standard Specification for Portland Cement; 2019a.
- L. ASTM C171 Standard Specification for Sheet Materials for Curing Concrete; 2016.

- M. ASTM C309 Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2019.
- N. ASTM C494/C494M Standard Specification for Chemical Admixtures for Concrete; 2017.
- O. ASTM C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2019.
- P. ASTM D1751 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types); 2018.
- Q. ASTM E1155M Standard Test Method for Determining F(F) Floor Flatness and F(L) Floor Levelness Numbers (Metric); 2014.
- R. NSF 61 Drinking Water System Components Health Effects; 2019.
- S. NSF 372 Drinking Water System Components Lead Content; 2016.

## 1.05 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
  - 1. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.
  - 2. Anchoring epoxy and expansion anchors.
- B. Mix Designs: Submit 15 days prior to start of work.
  - 1. Submit for each type of concrete specified.
  - 2. Include back-up test data.
  - 3. Indicate proposed mix design complies with requirements of ACI 301, Section 4 Concrete Mixtures.
  - 4. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 Concrete Quality, Mixing and Placing.
- C. Test Reports: Submit report for each test or series of tests specified.

## 1.06 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

## 1.07 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

## PART 2 PRODUCTS

## 2.01 FORMWORK

A. Comply with requirements of Section 03 10 00.

## 2.02 REINFORCEMENT

A. Comply with requirements of Section 03 20 00.

## 2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I Normal Portland type.1. Acquire cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C 33.1. Acquire aggregates for entire project from same source.
- C. Fly Ash: ASTM C618, Class C.
- D. Water: Clean and not detrimental to concrete.

## 2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.
- C. High Range Water Reducing Admixture: ASTM C494/C494M Type F.
- D. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.
- E. Water Reducing and Retarding Admixture: ASTM C494/C494M Type D.
- F. Accelerating Admixture: ASTM C494/C494M Type C.
- G. Retarding Admixture: ASTM C494/C494M Type B.
- H. Water Reducing Admixture: ASTM C494/C494M Type A.

## 2.05 ACCESSORY MATERIALS

- A. Anchoring Epoxy: Refer to drawings. Acceptable manufacturer's include...
  - 1. Hilti: HIT-RE500-SD injection anchoring system.
  - 2. Simpson Strong-Tie: SET-XP injection anchoring adhesive system.
  - 3. Powers Fasteners: PE 1000+ injection adhesive anchoring system.

## 2.06 BONDING AND JOINTING PRODUCTS

- A. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.
  - 1. Material: ASTM D1751, cellulose fiber.
- B. Slab Contraction Joint Device: Preformed linear strip intended for pressing into wet concrete to provide straight route for shrinkage cracking.

## 2.07 CURING MATERIALS

A. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.

B. Water: Potable, not detrimental to concrete.

## 2.08 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
  - 1. For trial mixtures method, employ independent testing agency acceptable to Architect/Engineer for preparing and reporting proposed mix designs.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer. Submit to Architect for review and approval.
- D. Normal Weight Concrete: Type "B".
  - 1. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: 3,000 psi.
  - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
  - 3. Water-Cement Ratio: Maximum 56 percent by weight.
  - 4. Total Air Content: 2 percent, determined in accordance with ASTM C 173/C 173M.
  - 5. Maximum Slump: 4 inches.
  - 6. Maximum Aggregate Size: 1 inch.
- E. Normal Weight Concrete: Type "D".
  - 1. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: 4,500 psi.
  - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
  - 3. Total Air Content: 6 percent, determined in accordance with ASTM C 173/C 173M.
  - 4. Maximum Slump: 4 inches.
  - 5. Maximum Aggregate Size: 3/4 inch.
- F. Column Base Plate Grout: See 2.05 Concrete Accessories.

## 2.09 MIXING

A. Transit Mixers: Comply with ASTM C94/C94M.

## PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

## 3.02 PREPARATION

- A. Verify that forms are clean and free of rust before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- C. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and secure in place using approved epoxy.

## 3.03 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Notify Architect/Engineer not less than 24 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Ensure reinforcement will not be disturbed during concrete placement.
- F. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- G. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

## 3.04 SLAB JOINTING

- A. Locate joint in center of long direction of the slab/pad.
- B. Load Transfer Construction and Contraction Joints: Install load transfer devices as indicated; saw cut joint at surface as indicated for contraction joints.
- C. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 4 to 12 hours after placing; use 3/16 inch thick blade and cut at least 1 inch deep but not less than one quarter (1/4) the depth of the slab.
- D. Install joint devices in accordance with manufacturer's instructions.
- E. Place concrete continuously between predetermined expansion, control, and construction joints.
- F. Do not interrupt successive placement; do not permit cold joints to occur.
- G. Place floor slabs in checkerboard or saw cut pattern indicated.
- H. Saw cut joints within 8-12 hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.

# 3.05 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. Screed slabs on grade level, maintaining the following minimum F(F) Floor Flatness and F(L) Floor Levelness values when measured in accordance with ASTM E 1155/ASTM E 1155M.
  - 1. F(F): Specified Overall Value (SOV) of 35; Minimum Localized Value (MLV) of 24.
  - 2. F(L): Specified Overall Value (SOV) of 25; Minimum Localized Value (MLV) of 17.
- B. Correct the slab surface if tolerances are less than specified.
- C. Measure F(F) Floor Flatness and F(L) Floor Levelness in accordance with ASTM E1155 (ASTM E1155M), within 48 hours after slab installation; report both composite overall values and local values for each measured section.

- D. Correct the slab surface if composite overall value is less than specified and if local value is less than two-thirds of specified value or less than F(F) 13/F(L) 10.
- E. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

## 3.06 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
  - 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
- D. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
  - 1. Provide light broom finish on exterior flat work.
  - 2. Provide 3/4" radiused edge on exposed slab edges, unless otherwise noted.

# 3.07 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
  - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
    - a. Spraying: Spray water over floor slab areas and maintain wet.
    - b. Saturated Burlap: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place.
  - 2. Final Curing: Begin after initial curing but before surface is dry.
    - a. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

# 3.08 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.

# 3.09 DEFECTIVE CONCRETE

A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.

- B. Repair or replacement of defective concrete will be determined by the Architect/Engineer. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect/Engineer for each individual area.

## 3.10 PROTECTION

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

### 3.11 SCHEDULE - CONCRETE TYPES AND FINISHES

| Location                  | Mix Type            | Concrete Finish |
|---------------------------|---------------------|-----------------|
| A. Footings               | В                   | smooth form     |
| B. Piers                  | В                   | smooth form     |
| C. Exterior slab-on-grade | D<br>END OF SECTION | troweled        |

### SECTION 05 12 00 STRUCTURAL STEEL FRAMING

### PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Structural steel framing members.

### 1.02 PRODUCTS FURNISHED BUT NOT INSTALLED UNDER THIS SECTION:

A. Section 03 30 00 - Cast-In-Place Concrete: Anchor Bolts and Setting Plates.

### 1.03 RELATED REQUIREMENTS

### 1.04 REFERENCE STANDARDS

- A. AISC (MAN) Steel Construction Manual; 2017.
- B. AISC 303 Code of Standard Practice for Steel Buildings and Bridges; 2016.
- C. AISC 325-01 LRFD Manual of Steel Construction; American Institute of Steel Construction, Inc; 2001, Third Edition.
- D. AISC S303 Code of Standard Practice for Steel Buildings and Bridges; 2016.
- E. ASTM A36/A36M Standard Specification for Carbon Structural Steel; 2014.
- F. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- G. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- H. ASTM A307 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2014, with Editorial Revision (2017).
- I. ASTM A449 Standard Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use; 2014.
- J. ASTM A500/A500M Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2018.
- K. ASTM C1107/C1107M Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2017.
- L. ASTM F436/F436M Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.
- M. ASTM F1554 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength; 2018.
- N. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- O. AWS D1.1/D1.1M Structural Welding Code Steel; 2015, with Errata (2016).

### 1.05 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Shop Drawings:
  - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
  - 2. Connections.
  - 3. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

### 1.06 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."
- B. Fabricator: Company specializing in performing the work of this section with minimum 5 years of documented experience.
- C. Fabricator: Company holding the contract for the work of this Section must be a fabricator, not a broker, and must self-perform all the work of this Section.
- D. Erector: Company specializing in performing the work of this section with minimum 5 years of documented experience.
- E. Welder Qualifications: Qualified within previous 12 months in accordance with AWS.

## PART 2 PRODUCTS

## 2.01 MATERIALS

- A. Steel Plates: ASTM A36/A36M.
- B. Cold-Formed Structural Tubing: ASTM A500/A500M, Grade B.
- C. High-Strength Structural Bolts, Nuts, and Washers: ASTM A325 (ASTM A325M), Type 1, medium carbon, galvanized, with matching compatible ASTM A563 or A563M nuts and ASTM F436 washers.
- D. Unheaded Anchor Rods: ASTM F1554, Grade 36, plain, with matching ASTM A563 or ASTM A563M nuts and ASTM F436/F436M Type 1 washers.
- E. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- F. Touch-Up Primer for Galvanized Surfaces: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.
- G. Galvanized steel elements require galvanized bolts, nuts, washers, etc. to be installed.

## 2.02 FABRICATION

- A. Shop fabricate to greatest extent possible.
- B. Continuously seal joined members by continuous welds. Grind exposed welds smooth.
- C. Fabricate connections for bolt, nut, and washer connectors.

## 2.03 FINISH

- A. Prepare structural component surfaces in accordance with SSPC-SP2.
- B. Galvanize exterior exposed structural steel members to comply with ASTM A 123/A 123M. Provide minimum 1.7 oz/sq ft galvanized coating.

### PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

### 3.02 ERECTION

- A. See Section 03 30 00 for installation of anchor rods and setting plates.
- B. Erect structural steel in compliance with AISC 303.
- C. Allow for erection loads, and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing and all final connections are complete.
- D. Field weld components indicated on shop drawings.
- E. Install high-strength bolts in accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts".
- F. Do not field cut or alter structural members without approval of Architect/Engineer.
- G. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

## 3.03 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

## END OF SECTION

### SECTION 06 10 00 ROUGH CARPENTRY

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Structural dimension lumber framing.
- B. Nonstructural dimension lumber framing.
- C. Rough opening framing for doors, windows, and roof openings.
- D. Sheathing.
- E. Roofing nailers.
- F. Preservative treated wood materials.
- G. Miscellaneous framing and sheathing.
- H. Concealed wood blocking, nailers, and supports.
- I. Miscellaneous wood nailers, furring, and grounds.

### 1.02 RELATED REQUIREMENTS

- A. Section 03 30 00 Cast-in-Place Concrete: Setting anchors in concrete.
- B. Section 07 25 00 Weather Barriers: Water-resistive barrier over sheathing.
- C. Section 07 46 46 Fiber Cement Siding: Fiber Cement Siding over wall sheathing.

### 1.03 REFERENCE STANDARDS

- A. ASTM A153/A153M Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
- B. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2019a.
- C. ASTM C557 Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 2003 (Reapproved 2017).
- D. ASTM D3498 Standard Specification for Adhesives for Field-Gluing Wood Structural Panels (Plywood or Oriented Strand Board) to Wood Based Floor System Framing; 2019a.
- E. AWC (WFCM) Wood Frame Construction Manual for One- and Two-Family Dwellings; 2015.
- F. AWPA U1 Use Category System: User Specification for Treated Wood; 2018.
- G. ICC (IBC) International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- H. ICC (IECC) International Energy Conservation Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- I. PS 1 Structural Plywood; 2009.

- J. PS 2 Performance Standard for Wood-Based Structural-Use Panels; 2010.
- K. PS 20 American Softwood Lumber Standard; 2020.
- L. WWPA G-5 Western Lumber Grading Rules; 2017.

## 1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements for submittal procedures.
- B. Structural Composite Lumber: Submit manufacturer's published structural data including span tables, marked to indicate which sizes and grades are being used; if structural composite lumber is being substituted for dimension lumber or timbers, submit grading agency structural tables marked for comparison.

## 1.05 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

# PART 2 PRODUCTS

# 2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. Species: Spruce-Pine-Fir (South), unless otherwise indicated.
  - 2. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
  - 3. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

# 2.02 DIMENSION LUMBER

- A. Grading Agency: Western Wood Products Association; WWPA G-5.
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Stud Framing (2 by 2 through 2 by 6 ):
  - 1. Species: Hem-Fir or Spruce-Pine-Fir.
  - 2. Grade: No. 2.
- E. Small Beam Framing (2 by 6 through 4 by 16 ):
  - 1. Species: Hem-Fir or Spruce-Pine-Fir.
  - 2. Grade: No. 2.
- F. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No. 2 or Standard Grade.
  - 2. Boards: Standard or No. 3.

## 2.03 STRUCTURAL COMPOSITE LUMBER

- A. At Contractor's option, structural composite lumber may be substituted for concealed dimension lumber and timbers.
- B. Structural Composite Lumber: Factory fabricated beams, headers, and columns, of sizes and types indicated on drawings; structural capacity as published by manufacturer.
  - 1. Columns: Use laminated veneer lumber or parallel strand lumber with manufacturer's published modulus of elasticity, E: 1,800,000 psi, minimum.
  - 2. Beams: Use laminated veneer lumber or parallel strand lumber with manufacturer's published modulus of elasticity, E: 1,800,000 psi, minimum.

## 2.04 CONSTRUCTION PANELS

- A. Roof Sheathing: PS 2 type, rated Single Floor.
  - 1. Bond Classification: Exterior.
  - 2. Span Rating: 32/16.
  - 3. Performance Category: 3/4 PERF CAT.
  - 4. Edges: Tongue and groove.
  - 5. Glued and nailed to support members.
  - 6. Minimum thickness to be 3/4".
- B. Wall Sheathing: APA PS 1-09, Structural I Rated Sheathing, Exterior Exposure Class, and as follows:
  - 1. Thickness: 1/2 inch, nominal.

## 2.05 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: Expansion shield and lag bolt type for anchorage to solid masonry or concrete.
- B. Die-Stamped Connectors: Hot dipped galvanized steel, sized to suit framing conditions.
  - 1. For contact with preservative treated wood in exposed locations, provide minimum G185 galvanizing complying with ASTM A653/A653M.
- C. Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions.
  - 1. For contact with preservative treated wood in exposed locations, provide minimum G185 galvanizing complying with ASTM A653/A653M.
- D. Subfloor Adhesives: Waterproof, air cure type, cartridge dispensed; adhesives designed for subfloor applications and complying with either ASTM C557 or ASTM D3498.
- E. Water-Resistive Barrier: See Section 07 25 00.

## 2.06 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. 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 Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
  - 1. Kiln dry lumber after treatment to maximum moisture content of 15 percent.
  - 2. Treat lumber in contact with roofing, flashing, or waterproofing.
  - 3. Treat lumber in contact with masonry or concrete.
  - 4. Treat lumber less than 18 inches above grade.
  - 5. Preservative Pressure Treatment of Plywood Above Grade: AWPA U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative.
    - a. Kiln dry plywood after treatment to maximum moisture content of 15 percent.
    - b. Treat plywood in contact with roofing, flashing, or waterproofing.
    - c. Treat plywood in contact with masonry or concrete.
    - d. Treat plywood less than 18 inches above grade.
- C. Restrictions: Do not use lumber or plywood treated with chromated copper arsenate (CCA) in exposed exterior applications subject to leaching.

# PART 3 EXECUTION

## 3.01 PREPARATION

A. Coordinate installation of rough carpentry members specified in other sections.

## 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 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AWC (WFCM) Wood Frame Construction Manual.
- E. Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.

- F. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- G. Provide bridging at joists in excess of 8 feet span at mid-span. Fit solid blocking at ends of members.
- H. Frame wall openings with two or more studs at each jamb; support headers on cripple studs.

## 3.04 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to authorities having jurisdiction may be used in lieu of solid wood blocking.
- C. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- D. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.
- E. Provide the following specific nonstructural framing and blocking:1. Joints of rigid wall and soffit coverings that occur between studs.

## 3.05 ROOF-RELATED CARPENTRY

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

# 3.06 INSTALLATION OF CONSTRUCTION PANELS

- A. Subflooring/Underlayment Combination: Glue and Screw to framing; staples are not permitted.
- B. Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
  - 1. At long edges use sheathing clips where joints occur between roof framing members.
  - 2. Nail panels to framing; staples are not permitted.
- C. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails, screws, or staples.
  - 1. Use plywood or other acceptable structural panels at building corners, for not less than 96 inches, measured horizontally.
  - 2. Place water-resistive barrier horizontally over wall sheathing, weather lapping edges and ends.

# 3.07 TOLERANCES

A. Framing Members: 1/4 inch from true position, maximum.

B. Variation from Plane, Other than Floors: 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

## 3.08 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.

## 3.09 SCHEDULES

- A. Exterior Battens For Fastening Rainscreen Boards: Pressure preservative treated.
- B. Other Applications: Untreated.

# END OF SECTION

### SECTION 07 25 00 WEATHER BARRIERS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Water-Resistive Barrier: Under exterior wall cladding, over sheathing or other substrate; sealed air tight over sheathing areas that have building insulation behind.

#### 1.02 RELATED REQUIREMENTS

A. Section 07 62 00 - Sheet Metal Flashing and Trim: Metal flashings installed in conjunction with weather barriers.

#### 1.03 DEFINITIONS

- A. Weather Barrier: Assemblies that form either water-resistive barriers, air barriers, or vapor retarders.
- B. Water-Resistive Barrier: Water-shedding barrier made of material that is moisture resistant, to the degree specified, intended to be installed to shed water, with sealed seams.

### 1.04 REFERENCE STANDARDS

- A. ASTM D1970/D1970M Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2019.
- B. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2019b.
- C. ASTM E96/E96M Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- D. ICC-ES AC38 Acceptance Criteria for Water-Resistive Barriers; 2016.

### 1.05 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on material characteristics.
- C. Manufacturer's Installation Instructions: Indicate preparation, installation methods, and storage and handling criteria.

### PART 2 PRODUCTS

### 2.01 WATER-RESISTIVE BARRIER MATERIALS

- A. Substitutions: See Section 01 60 00 Product Requirements.
- B. Water-Resistive Barrier for Open-Joint Wall Cladding: Waterproof acrylate coating on tear-resistant polyester fleece with unlimited UV exposure limit.
  - 1. Width: 4.9 feet, minimum.
  - 2. Water Vapor Permeance: 107 perms, minimum, when tested in accordance with ASTM E96/E96M using Procedure A Desiccant Method, at 73.4 degrees F.

- 3. Ultraviolet (UV) Light Exposure Limit: Unlimited in open facings featuring joints up to 2 inches wide and that cover 40 percent or less of surface area.
- 4. Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 450 or less, Class A when tested in accordance with ASTM E84.
- 5. Water Resistance: Comply with applicable requirements in accordance with ICC-ES AC38.
- 6. Color: Black.
- 7. Seam and Perimeter Tape: As recommended by sheet manufacturer.
- 8. Product:
  - a. SIGA Cover Inc; SIGA-Majvest 700 SOB: www.sigacover.com.
- C. Self-Adhering Butyl-Rubber Sheet: ASTM D1970/D1970M; strippable release film.
  - 1. Top Sheet: Woven polypropylene top surface.
  - 2. Sheet Thickness: 19 mil, minimum.
  - 3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
  - 4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
  - 5. Functional Temperature Range: Minus 45 degrees F to 250 degrees F.
  - 6. Ultraviolet (UV) Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of six months.
  - 7. Products:
    - a. Protecto Wrap Company; Jiffy Seal Ice and Water Guard HT: www.protectowrap.com.
    - b. Protecto Wrap Company; Jiffy Seal Ice and Water Guard Extreme: www.protectowrap.com.
    - c. Protecto Wrap Company; Jiffy Seal Butyl Ice and Water Guard HT: www.protectowrap.com.

# 2.02 ACCESSORIES

- A. Sealants, Tapes, and Accessories Used for Sealing Water-Resistive Barrier and Adjacent Substrates: As indicated or complying with water-resistive barrier manufacturer's installation instructions.
- B. Flexible Flashing: Self-adhesive sheet flashing complying with ASTM D1970/D1970M, except slip resistance requirement is waived if not installed on a roof.
  - 1. Width: 4 inches.
  - 2. Ultraviolet (UV) and Weathering Resistance: Approved by manufacturer for up to 30 days of weather exposure.
  - 3. Color: Black.
  - 4. Product:
    - a. SIGA Cover Inc; SIGA-Wigluv: www.sigacover.com.
- C. Flashing: Stainless steel; see Section 07 62 00.
- D. Attachment Fasteners: In accordance with water-resistive barrier manufacturer's requirements.

# PART 3 EXECUTION

# 3.01 EXAMINATION

A. Verify that surfaces and conditions comply with requirements of this section.

## 3.02 PREPARATION

- A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.
- B. Clean and prime substrate surfaces to receive adhesives and sealants in accordance with manufacturer's installation instructions.

# 3.03 INSTALLATION

- A. Install materials in accordance with manufacturer's installation instructions.
- B. Water-Resistive Barriers: Install continuous barrier over surfaces indicated, with sheets lapped to shed water with seams sealed.
- C. Apply sealants and adhesives within recommended temperature range in accordance with manufacturer's installation instructions.
- D. Mechanically Fastened Exterior Sheets:
  - 1. Install sheets shingle-fashion to shed water, with seams aligned horizontal.
  - 2. Overlap seams as recommended by manufacturer, 6 inches, minimum.
  - 3. Overlap at outside and inside corners as recommended by manufacturer, 12 inches, minimum.
  - 4. Attach to framed construction in accordance with maufacturer's instructions.
  - 5. Seal seams, laps, penetrations, tears, and cuts with self-adhesive tape; use only large-headed, gasketed fasteners recommended by the manufacturer.
  - 6. Install water-resistive barrier over jamb flashings.
  - 7. Install head flashings under water-resistive barrier.
  - 8. At framed openings with frames having nailing flanges, extend sheet into opening and over flanges; at head of opening, seal sheet over flange and flashing.
- E. Self-Adhered Sheets:
  - 1. Prepare substrate in accordance with sheet manufacturer's installation instructions; fill and tape joints in substrate and between dissimilar materials.
  - 2. Lap sheets shingle-fashion to shed water and seal laps airtight.
  - 3. Upon placement of sheets, firmly press onto substrate with resilient hand roller; ensure that laps are firmly adhered with no gaps or fishmouths.
  - 4. Use same material, or other material approved by sheet manufacturer, to seal sheets to adjacent substrates, and as flashing.
  - 5. At expansion joints, provide transition to joint assemblies approved by sheet manufacturer.
- F. Openings and Penetrations in Exterior Water-Resistive Barriers:
  - 1. Install flashing over sills, covering entire sill framing member, and extend at least 5 inches onto water-resistive barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
  - 2. At openings filled with nonflanged frames, seal water-resistive barrier to each side of framing at opening using flashing at least 9 inches wide, and covering entire depth of framing.
  - 3. At head of openings, install flashing under water-resistive barrier extending at least 2 inches beyond face of jambs; seal water-resistive barrier to flashing.
  - 4. At interior face of openings, seal gaps between window and door frames and rough framing using appropriate joint sealant over backer rod.

5. Service and Other Penetrations: Form flashing around penetrating items and seal to surface of water-resistive barrier.

## 3.04 PROTECTION

A. Do not leave materials exposed to weather longer than recommended by manufacturer.

END OF SECTION

### SECTION 07 46 23 WOOD SIDING

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Board siding for rainscreen walls with batten strips.
- B. Fasteners.

### 1.02 RELATED REQUIREMENTS

- A. Section 05 40 00 Cold-Formed Metal Framing: Water-resistive barrier under siding.
- B. Section 06 10 00 Rough Carpentry: Siding substrate battens.
- C. Section 07 25 00 Weather Barriers: Water-resistive barrier under siding.
- D. Section 09 91 13 Painting: Prime and finish painting.

#### 1.03 REFERENCE STANDARDS

A. AWPA U1 - Use Category System: User Specification for Treated Wood; 2018.

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturer's data on materials, fastening methods, jointing details, sizes, surface texture, finishes, and accessories; showing compliance with requirements, including:
  - 1. Physical characteristics of components shown on shop drawings.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation instructions and recommendations.
- C. Shop Drawings: Indicate dimensions, layout, joints, construction details, support clips, and methods of anchorage.
- D. Samples: Submit two samples 12 inches in length illustrating surface texture and applied finish color.
- E. Installer's qualification statement.

### 1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in installing products of the type specified in this section with minimum five years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Store in ventilated areas with constant minimum temperature of 60 degrees F and maximum relative humidity of 55 percent.

## PART 2 PRODUCTS

### 2.01 MANUFACTURER

### A. Wood Siding:

1. Belco Forest Products; XT Trim: www.belcofp.com.

### 2.02 SIDING

- A. Board Rainscreen Siding: Flat, maximum moisture content of 10 percent.
  - 1. Size: 1x4 nominal board; 3/4 inch thick (actual), 3-3/8 inch high (actual).
  - 2. Surface Texture: Sanded smooth.
  - 3. Preservative Treatment: Pressure treatment in accordance with AWPA U1, using water borne preservative.

### 2.03 ACCESSORIES

A. Screws: #8 deck screws; 2 inches long; flat head; square recess type; 18-8 stainless steel.

### PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that substrates are ready to receive work.
- B. Verify that water-resistive barrier has been correctly and completely installed over substrate; see Section 05 40 00.
- C. Verify battens have been installed at correct locations and site pre--finishing of batten strips is complete and dry.
- D. Do not begin until unacceptable conditions have been corrected.
- E. If substrate preparation is the responsibility of another installer, notify Architect/Engineer of unsatisfactory preparation before proceeding.

## 3.02 PREPARATION

A. Do not install materials until site pre-finishing of boards is complete and dry.

## 3.03 INSTALLATION

- A. Fasten siding boards in place, level and plumb.
  - 1. Arrange for neat, aligned, orderly screw pattern, as indicated on the Drawings.
  - 2. Pilot and countersink screw holes.
  - 3. Position cut ends over bearing surfaces, and sand cut edges smooth and clean.
- B. Install board siding using single horizontally, with boards spaced at 4 inches on cneter, vertically making longitudinal gaps between boards uniform.
  - 1. Screw at 16 inches on center, and align pairs of screws vertically with each other and from board to board.
  - 2. Butt horizontal joints tight, and butt external and internal corners. Alternate lap of corner butt joints between adjacent siding board courses.

C. Touch-up, repair, or replace wood siding materials having damaged finish; notify Architect/Engineer of damaged materials, and confirm acceptable process prior to completion of this work.

## 3.04 TOLERANCES

- A. Maximum Variation From Plumb and Level: 1/8 inch per 10 feet.
- B. Maximum Offset From Joint Alignment: 1/32 inch. END OF SECTION

### SECTION 07 46 46 FIBER-CEMENT SIDING

### PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Fiber-cement siding.

### 1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 Rough Carpentry: Siding substrate.
- B. Section 07 92 00 Joint Sealants: Sealing joints between siding and adjacent construction and fixtures.

### 1.03 REFERENCE STANDARDS

A. ASTM C1186 - Standard Specification for Flat Fiber Cement Sheets; 2008 (Reapproved 2016).

### 1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's data sheets on each product to be used, including:
  - 1. Manufacturer's requirements for related materials to be installed by others.
  - 2. Preparation instructions and recommendations.
  - 3. Storage and handling requirements and recommendations.
  - 4. Installation methods, including nail patterns.
- B. Shop Drawings: Indicate dimensions, layout, joints, construction details, support clips, and methods of anchorage.
- C. Maintenance Instructions: Periodic inspection recommendations and maintenance procedures.
- D. Warranty: Submit copy of manufacturer's warranty, made out in Owner's name, showing that it has been registered with manufacturer.

## 1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of the type specified in this section with minimum five years of experience.

## 1.06 DELIVERY, STORAGE, AND HANDLING

A. Store products under waterproof cover and elevated above grade, on a flat surface.

## 1.07 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. Provide multi-year manufacturer warranty as indicated under Siding article sub-heading "Warranty".

## PART 2 PRODUCTS

### 2.01 FIBER-CEMENT SIDING

- A. Panel Siding: Vertically oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment. Use for interior ceiling panels.
  - 1. Texture: Simulated cedar grain.
  - 2. Length: 96 inches, nominal.
  - 3. Width: 48 inches.
  - 4. Thickness: 5/16 inch, nominal.
  - 5. Finish: Factory applied topcoat.
  - 6. Color: As selected by Architect/Engineer from manufacturers full range of available colors.
  - 7. Warranty: 50 year limited; transferable.
  - 8. Manufacturers:
    - a. CertainTeed Corporation : www.certainteed.com.
    - b. James Hardie Building Products, Inc: www.jameshardie.com.
    - c. Nichiha USA, Inc: www.nichiha.com.
    - d. Substitutions: Not permitted.
- B. Factory Finish: Monochromic topcoat.

### 2.02 ACCESSORIES

- A. Trim: Same material and texture as siding.
- B. Fasteners: Galvanized or corrosion resistant; length as required to penetrate, 1-1/4 inch, minimum.
- C. Sealant: Elastomeric, polyurethane or silyl-terminated polyether/polyurethane, and capable of being painted.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Examine substrate, clean and repair as required to eliminate conditions that would be detrimental to proper installation.
- B. Do not begin until unacceptable conditions have been corrected.
- C. If substrate preparation is responsibility of another installer, notify Architect/Engineer of unsatisfactory preparation before proceeding.

### 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions and recommendations.
  - 1. Read warranty and comply with terms necessary to maintain warranty coverage.
  - 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
  - 3. Use trim details indicated on drawings.
  - 4. Touch up field cut edges before installing.

- 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Panel Siding Used for Ceiling and Soffit Applications:
  - 1. Install according to manufacturer's written instructions and in locations shown on the drawings.
  - 2. Where installed over wood framing without sheathing, provide blocking perpendicular to framing at locations to provide support for all edges of panels.
  - 3. Install joint sealant at all butt joints between siding panels.
- C. Allow space for thermal movement between both ends of siding panels that butt against trim; seal joint between panel and trim with specified sealant.
- D. After installation, seal joints except lap joints of lap siding; seal around penetrations, and paint exposed cut edges.

# 3.03 PROTECTION

- A. Protect installed products until Date of Substantial Completion.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion. **END OF SECTION**

### SECTION 07 53 00 ELASTOMERIC MEMBRANE ROOFING

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

- A. Elastomeric roofing membrane, adhered conventional application.
- B. Insulation, flat, tapered, and with integral cover board.
- C. Vapor retarder.
- D. Flashings.
- E. Roof pavers systems.

### 1.02 RELATED REQUIREMENTS

A. Section 07 62 00 - Sheet Metal Flashing and Trim: Flashings and counterflasings.

### 1.03 REFERENCE STANDARDS

- A. ASCE 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. ASTM C1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2019.
- C. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016.
- D. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers; 2000 (Reapproved 2012).
- E. ASTM D746 Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact; 2014.
- F. ASTM D1929 Standard Test Method for Determining Ignition Temperature of Plastics; 2020.
- G. ASTM D2240 Standard Test Method for Rubber Property--Durometer Hardness; 2015, with Editorial Revision (2017).
- H. ASTM D4637/D4637M Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015.
- I. ASTM E96/E96M Standard Test Methods for Water Vapor Transmission of Materials; 2016.
- J. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester; 1993 (Reapproved 2013).
- K. FM (AG) FM Approval Guide; current edition.
- L. FM DS 1-28 Wind Design; 2016.
- M. FM DS 1-29 Roof Deck Securement and Above-Deck Roof Components; Factory Mutual System; 2016.

- N. NRCA (RM) The NRCA Roofing Manual; 2019.
- O. NRCA (WM) The NRCA Waterproofing Manual; 2005.
- P. UL (DIR) Online Certifications Directory; Current Edition.

## 1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of associated counterflashings installed under other sections.
- B. Preinstallation Meeting: Convene a preinstallation 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.

## 1.05 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop Drawings: Indicate joint or termination detail conditions and conditions of interface with other materials.
- D. Manufacturer's Installation Instructions: Indicate membrane seaming precautions, special procedures, and perimeter conditions requiring special attention.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.
- G. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

# 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum ten years documented experience, and approved by manufacturer.
  - 1. Having achieved at least one of the following certifications/recognitions by the manufacturer:
    - a. Carlisle "ESP Contractor" status for the current year <u>and</u> current year "Perfection Award" recipient.
    - b. Firestone "Master Contractor" status for the current year <u>and</u> a current annual "Quality Incidence Rating" of 2.0 or less.
    - c. Versico "King's Court" contractor status for the current year <u>and</u> "Gold Medal Quality Program" contractor status for the current year.

# 1.07 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.

## 1.08 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above 95 degrees F.
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- E. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

## 1.09 WARRANTY

- A. See Section 01 78 00 Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two year period after Date of Substantial Completion.
- C. Provide manufacturer's extended twenty (20) year "total roof system" material and labor warranty to cover failure to prevent penetration of water. Include entire roof system, from top of roof decking to top of roofing membrane, including associated metal flashings and counterflashings.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. EPDM Membrane Materials:
  - 1. Carlisle Roofing Systems, Inc: www.carlisle-syntec.com.
  - 2. Firestone Building Products, LLC: www.firestonebpco.com.
  - 3. GenFlex Roofing Systems, LLC: www.genflex.com.
  - 4. Versico Roofing Systems: www.versico.com.
  - 5. Substitutions: Not permitted.
- B. Insulation:
  - 1. Same manufacturer as Membrane Materials, for inclusion in total system warranty.

# 2.02 ROOFING

- A. Elastomeric Membrane Roofing: One ply membrane, fully adhered, over insulation.
- B. Roofing Assembly Requirements:
  - 1. Roof Covering External Fire Resistance Classification: UL (DIR) certified Class A.

- 2. Factory Mutual Classification: Class 1 and windstorm resistance of 1-90, in accordance with FM DS 1-28.
- 3. Securement of Roofing Components: As prescribed in FM DS 1-29 and ASCE 7.
- C. Acceptable Insulation Types Constant Thickness Application:1. Minimum 2 layers of polyisocyanurate board.
- D. Acceptable Insulation Types Tapered Application:1. Tapered polyisocyanurate board.

# 2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane: Ethylene-propylene-diene-terpolymer (EPDM); non-reinforced; complying with minimum properties of ASTM D4637.
  - 1. Thickness: 60 mil, 0.060 inch.
  - 2. Sheet Width: 120 inches, maximum; factory fabricate into widest possible sheets.
  - 3. Color: Black.
  - 4. Tensile Strength: 1,300 psi, measured in accordance with ASTM D412.
  - 5. Ultimate Elongation: 300 percent, measured in accordance with ASTM D412.
  - 6. Durometer Hardness, Type A: 30, minimum, in accordance with ASTM D2240
  - 7. Tear Strength: 150 lbf per inch, measured in accordance with ASTM D624.
  - 8. Water Vapor Permeability: 2.0 perm inch, measured in accordance with ASTM E96/E96M.
  - 9. Brittleness Temperature: -49 degrees F, measured in accordance with ASTM D746.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Vapor Retarder: Plastic, complying with requirements of fire rating classification; compatible with roofing and insulation materials.
  - 1. Vapor permeability: Not more than 0.06 perms, measured in accordance with ASTM E 96/E 96M.
- D. Flexible Flashing Material: Same material as membrane.

# 2.04 INSULATION

- A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.
  - 1. Classifications:
    - a. Type II:
      - 1) Class 1 Faced with glass fiber reinforced cellulosic felt facers on both major surfaces of core foam.
      - 2) Compressive Strength: Classes 1-2-3, Grade 2 20 psi (138 kPa), minimum.
      - Thermal Resistance, R-value: At 1-1/2 inch thick (UNO); Class 1, Grades 1-2-3 8.4 (1.48) at 75 degrees F. Total R-value of total thickness of all layers as indicated on the Drawings.
    - b. Type IV: Faced with 1/2 inch thick high density insulating board on top surface of core foam and glass fiber reinforced cellulosic felt or uncoated or coated polymer-bonded glass fiber mat facer on bottom surface of core foam.
      - 1) Compressive Strength:
        - a) High Density Insulating Board: 80 psi, minimum.
        - b) Core Foam: 20 psi, minimum.
- 2) Thermal Resistance, R-value: At 1-1/2 inches thick; 8.2 at 75 degrees F.
- 2. Board Size:
  - a. Loose-Laid, Mechanically Attached Applications: 48 x 96 inches.
  - b. Fully Adhered Applications: 48 x 48 inches.
- 3. Board Thickness: As indicated on the Drawings.
- 4. Maximum Board Thickness: 3 inches.
- 5. Tapered Board: Slope as indicated; minimum thickness 1/2 inch; fabricate of fewest layers possible.
- 6. Board Edges: Square.

# 2.05 ROOF TERRACE PAVERS SYSTEMS

- A. Precast Concrete Roof Pavers: Precast concrete tiles, with texture and color as indicated; supported by adjustable pedestal system.
  - 1. Comply with local wind load resistance requirements of ASCE 7.
  - 2. Texture: As selected by Architect from manufacturer's standard line.
  - 3. Length and Width: 23-7/8 by 23-7/8 inches, nominal.
  - 4. Thickness: 2 inches, nominal.
  - 5. Weight: 24 lb per square foot, nominal.
  - 6. Slip Resistance: Provide walking surfaces of exterior pavers with pendulum test values of at least 40 in accordance with ASTM E303 test method.
  - 7. Product:
    - a. Match existing product used on roof terrace at River's Edge Park..
    - b. Substitutions: Not permitted.
- B. Paver Pedestals: Adjustable stand of multiple high impact copolymer polypropylene components to level and adjust height of pavers using 4-3/16-inch diameter SDR-35 PVC pipe, with maximum static load of 2,000 lb per pedestal.
  - 1. Comply with local wind load resistance requirements of ASCE 7.
  - 2. Self-Ignition Temperature: Provide plastic pedestal components with self-ignition temperature greater than 650 degrees F in accordance with ASTM D1929 test method.
  - 3. Pedestal Height: Within 1/2 inch to 2-1/4 inches, without use of PVC pipe in pedestal system.
  - Pedestal Height: Within 2-1/4 inches to 36 inches, with use of PVC pipe in pedestal system.
    a. Roof Slope: Zero to 4 percent roof slope.
  - 5. Pedestal Spacing: 24 inch on center, nominal.
  - 6. Provide rigid insulation with at least 60 psi compressive strength when part of pedestal support structure, and ensure other components supporting pedestals are of similar or greater compressive strength.

# 2.06 ACCESSORIES

- A. Insulation Fasteners: Appropriate for purpose intended and approved by Factory Mutual and roofing manufacturer.
- B. Membrane Adhesive: As recommended by membrane manufacturer.
- C. Insulation Adhesive: As recommended by insulation manufacturer.
- D. Insulation Adhesive: Low-rise polyurethane foam type; approved by insulation manufacturer.

E. 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 cant strips 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. Install vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
  - 1. Extend vapor retarder under perimeter blocking, past deck edge and up backside face of parapets to top of roofing insulation. Seal top edge of vapor retarder to backside face of parapets.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- C. Attachment of Insulation:
  - 1. Mechanically fasten first layer of insulation to deck in accordance with roofing manufacturer's instructions and FM (AG) Factory Mutual requirements.
  - 2. Embed second layer of insulation into full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.
- D. Lay subsequent layers of insulation with joints staggered minimum 6 inches from joints of preceding layer.
- E. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
- F. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- G. 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. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- C. Shingle joints on sloped substrate in direction of drainage.
- D. Fully Adhered Application: Apply adhesive to substrate. Fully embed membrane in adhesive except in areas directly over or within 3 inches of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
- E. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.
- F. At intersections with vertical surfaces:
  - 1. Secure flexible flashing attachment strip to nailing strips at 4 inches on center.
  - 2. Extend membrane over flexible flashing and nailing strips and up a minimum of 12 inches onto vertical surfaces. Continue membrane past tops of parapets and lip membrane over tops of parapets so that membrane extends a minimum of 1 inch down past bottom of roof blocking on exterior faces of parapets.
  - 3. Fully adhere membrane to flexible flashing attachment strip.
  - 4. Install in accordance with NRCA (RM) Construction Detail EPDM-1.
- G. Coordinate installation of roof drains and sumps and related flashings.
  - 1. Install in accordance with NRCA (RM) Construction Detail EPDM-25.
- H. Coordinate installation of associated counterflashings installed under other sections.

## 3.05 PEDESTALS AND PAVERS INSTALLATION

- A. Install pavers on pedestals in accordance with manufacturer's instructions.
  - 1. Fully support edges; adjust pedestals to provide level paver surface.
  - 2. Provide approximately 1/8 inch space between pavers to permit surface water drainage.

# 3.06 FIELD QUALITY CONTROL

A. Require site attendance of roofing material manufacturer at mobilization and upon completion of the Work.

# 3.07 CLEANING

- A. 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.
- B. Repair or replace defaced or damaged finishes caused by work of this section.

# 3.08 PROTECTION

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

#### SECTION 07 62 00 SHEET METAL FLASHING AND TRIM

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, exterior penetrations, and other items indicated in Schedule.
- B. Sealants for joints within sheet metal fabrications.

## 1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 Rough Carpentry: Wood nailers for sheet metal work.
- B. Section 07 53 00 Elastomeric Membrane Roofing: Roofing system.
- C. Section 07 92 00 Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

## 1.03 REFERENCE STANDARDS

- A. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2017a.
- B. ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.
- C. ASTM B209/B209M Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.
- D. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2018.
- E. CDA A4050 Copper in Architecture Handbook; current edition.
- F. SMACNA (ASMM) Architectural Sheet Metal Manual; 2012.

# 1.04 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

#### 1.05 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.

# 1.06 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with five years of experience.

# 1.07 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 Manufacturers:
  - 1. Petersen Aluminum Corporation: www.pac-clad.com.
  - 2. Substitutions: See Section 01 60 00 Product Requirements.

## 2.02 SHEET MATERIALS

- A. Pre-Finished Aluminum: ASTM B209/B209M; 20 gage, (0.032 inch) thick; plain finish shop pre-coated with PVDF coating.
  - Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; pretreated metal with two coat system including primer and color coat with at least 70 percent PVDF coating.
  - 2. Color: As selected by Architect/Engineer from manufacturer's standard colors.
- B. Stainless Steel: ASTM A666, Type 304 alloy, soft temper, 28 gauge, 0.0156 inch thick; smooth No. 4 Brushed finish.

# 2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet, minimum 3 inches wide, interlocking with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- E. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- F. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
- G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- H. Fabricate flashings to allow toe to extend 2 inches over roofing paver. Return and brake edges.

# 2.04 GUTTER AND DOWNSPOUT FABRICATION

- A. Downspouts: Rectangular profile.
- B. Downspouts: Size for rainfall intensity determined by a storm occurrence of 1 in 10 years in accordance with SMACNA (ASMM).
- C. Accessories: Profiled to suit downspouts.

- 1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
- 2. Downspout Supports: Brackets.
- D. Downspout Boots: Cast iron.
- E. Seal metal joints.

# 2.05 ACCESSORIES

- A. Fasteners: Galvanized steel, with soft neoprene washers.
- B. Primer: Zinc chromate type.
- C. Protective Backing Paint: Zinc molybdate alkyd.
- D. Concealed Sealants: Non-curing butyl sealant.
- E. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
- F. Downspout Boots: Cast iron; ASTM A48.
  - 1. Manufacturer:
    - a. Downspoutboots.com, a division of J. R. Hoe & Sons: www.downspoutboots.com.
- G. Plastic Cement: ASTM D4586/D4586M, Type I.

# 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.

# 3.03 INSTALLATION

- A. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..
- B. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- C. Seal metal joints watertight.
- D. Secure downspouts in place with fasteners.
- E. Connect downspouts to downspout boots, and seal connection watertight.

# 3.04 SCHEDULE

- A. Base Flashing Under Water Resistive Barrier:
  - 1. Material: Stainless steel.
  - 2. Thickness: 28 gauge, 0.0156 inch.
  - 3. Finish: No. 4 Brushed.
- B. Downspouts and Conductor Heads:
  - 1. Material: Pre-Finished Aluminum.
  - 2. Downspout Thickness: 0.040 inch.
  - 3. Finish: PVDF coating.
  - 4. Color: White for elements adjacent to columns and for angled returns; dark brown to match raiscreen board stain for elements adjacent to rainscreen.
- C. Primary Drainage Scuppers:
  - 1. Material: Pre-Finished Aluminum.
  - 2. Thickness: 0.032 inch.
  - 3. Finish: PVDF Coating.
  - 4. Color: Dark brown to match rainscreen board siding stain.
  - 5. Drawing Detail: SMACNA (ASMM) Figure 1-27A.
- D. Coping, and Parapet Flashings:
  - 1. Material: Pre-Finished Aluminum.
  - 2. Thickness: 0.040 inch.
  - 3. Finish: PVDF Coating.
  - 4. Color: Metallic silver.
- E. Counterflashings at Roofing Terminations (over roofing base flashings):
  - 1. Material: Pre-Finished Aluminum.
  - 2. Thickness: 0.040 inch.
  - 3. Finish: PVDF Coating.
  - 4. Metallic silver.
  - 5. Provide unitized inside and outside corners.

## SECTION 07 92 00 JOINT SEALANTS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.

## 1.02 RELATED REQUIREMENTS

A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.

## 1.03 REFERENCE STANDARDS

- A. ASTM C920 Standard Specification for Elastomeric Joint Sealants; 2018.
- B. ASTM C1193 Standard Guide for Use of Joint Sealants; 2016.
- C. ASTM C1248 Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2018.
- D. ASTM C1311 Standard Specification for Solvent Release Sealants; 2014.
- E. SCAQMD 1168 Adhesive and Sealant Applications; 1989 (Amended 2017).

# 1.04 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, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
- 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. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- E. Samples for Verification: Where custom sealant color is specified, obtain directions from Architect/Engineer and submit at least two physical samples for verification of color of each required sealant.

#### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years experience.

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

## 1.06 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 MANUFACTURERS

- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
  - 1. Dow Corning Corporation: www.dowcorning.com/construction.
  - 2. Hilti, Inc: www.us.hilti.com.
  - 3. Master Builders Solutions by BASF: www.master-builders-solutions.basf.us/en-us.
  - 4. Momentive Performance Materials, Inc (formerly GE Silicones): www.momentive.com.
  - 5. Pecora Corporation: www.pecora.com.
  - 6. Sherwin-Williams Company: www.sherwin-williams.com.
  - 7. Sika Corporation: www.usa-sika.com.
  - 8. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com.
  - 9. W.R. Meadows, Inc: www.wrmeadows.com/#sle.

10. Substitutions: See Section 01 60 00 - Product Requirements.

# 2.02 JOINT SEALANTS - GENERAL

A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.

# 2.03 NONSAG JOINT SEALANTS

- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
  - 1. Movement Capability: Plus 100 percent, minus 50 percent, 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. Color: To be selected by Architect/Engineer from manufacturer's standard range.
  - 5. Cure Type: Single-component, neutral moisture curing.
  - 6. Manufacturers:
    - a. Dow Corning Corporation; 790 Silicone Building Sealant: www.dowcorning.com/construction.
    - b. Sika Corporation; Sikasil WS-290: www.usa-sika.com.
    - c. Sika Corporation; Sikasil 728NS: www.usa-sika.com.
    - d. Tremco Commercial Sealants & Waterproofing; Spectrem 1: www.tremcosealants.com.
    - e. Tremco Commercial Sealants & Waterproofing; Tremsil 200: www.tremcosealants.com.

- f. Substitutions: See Section 01 60 00 Product Requirements.
- B. Polyurethane Sealant for Continuous Water Immersion: ASTM C920, Grade NS, Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion; suitable for traffic exposure when recessed below traffic surface.
  - 1. Movement Capability: Plus and minus 50 percent, minimum.
  - 2. Color: Match adjacent finished surfaces.
  - 3. Manufacturers:
    - a. Sika Corporation; Sikaflex-2c NS: www.usa-sika.com.
    - b. Substitutions: See Section 01 60 00 Product Requirements.
- C. Non-Curing Butyl Sealant: Solvent-based; ASTM C1311; single component, non-sag, non-skinning, non-hardening, non-bleeding; vapor-impermeable; intended for fully concealed applications.

## 2.04 ACCESSORIES

- A. Backer Rod: Cylindrical closed cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
  - 1. Size: 25 to 33 percent larger in diameter than joint width.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- E. 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. Perform installation in accordance with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. 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.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

## SECTION 09 91 13 PAINTING

## PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints and stains.
- C. Scope: Finish exterior and interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Exposed surfaces of galvanized steel columns, baseplates and connections.
  - 2. All surfaces of dimension lumber rainscreen battens, prior to installation of battens.
  - 3. All surfaces of rainscreen wood siding boards, prior to installation of siding boards on structure walls.

#### 1.02 RELATED REQUIREMENTS

#### 1.03 DEFINITIONS

A. Comply with ASTM D16 for interpretation of terms used in this section.

#### 1.04 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. ASTM D16 Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2016.
- C. ASTM D4442 Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2016.
- D. CARB (SCM) Suggested Control Measure for Architectural Coatings; California Air Resources Board; 2007.
- E. MPI (APL) Master Painters Institute Approved Products List; Master Painters and Decorators Association; Current Edition.
- F. MPI (APSM) Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- G. SCAQMD 1113 Architectural Coatings; 1977 (Amended 2016).
- H. SSPC-SP 1 Solvent Cleaning; 2015, with Editorial Revision (2016).
- I. SSPC-SP 2 Hand Tool Cleaning; 2018.

#### 1.05 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. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").

- 2. MPI product number (e.g. MPI #47).
- 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- 4. Manufacturer's installation instructions.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
  - 2. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as masonry, have been approved.
- D. Certification: By manufacturer that paints and finishes comply with VOC limits specified.
- E. Manufacturer's Instructions: Indicate special surface preparation procedures.
- F. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 01 60 00 Product Requirements, for additional provisions.
  - 2. Extra Paint and Finish Materials: 1 gallon of each color; from the same product run, store where directed.
  - 3. Label each container with color in addition to the manufacturer's label.

# 1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum five years experience and approved by manufacturer.

# 1.07 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, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

# 1.08 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the paint product manufacturer's temperature ranges.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

- C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Minimum Application Temperatures for Latex Paints: 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
  - If a single manufacturer cannot provide specified products, minor exceptions will be permitted provided approval by Architect/Engineer is obtained using the specified procedures for substitutions.
  - 2. Substitution of other products by the same manufacturer is preferred over substitution of products by a different manufacturer.
  - 3. Substitution of a different paint system using MPI-approved products by the same manufacturer will be considered.

# B. Paints:

- 1. AkzoNobel brands; Devoe High Performance Coatings and Dulux: https://www.akzonobel.com/our\_key\_markets/brands/.
- 2. Behr Process Corporation: www.behr.com.
- 3. Benjamin Moore & Co: www.benjaminmoore.com.
- 4. Glidden Professional, a product of PPG Architectural Coatings: www.gliddenprofessional.com.
- 5. PPG Paints: www.ppgpaints.com.
- 6. Sherwin-Williams Company: www.sherwin-williams.com.
- C. Primer Sealers: Same manufacturer as top coats.
- D. Substitutions: See Section 01 60 00 Product Requirements.

# 2.02 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
  - 1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at www.paintinfo.com, for specified MPI categories, except as otherwise indicated.
  - 2. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 3. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
  - 4. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
  - 5. Supply each paint material in quantity required to complete entire project's work from a single production run.

- 6. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Volatile Organic Compound (VOC) Content:
  - 1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
    - b. SCAQMD 1113 Rule.
    - c. CARB (SCM).
    - d. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; www.otcair.org; specifically:
      - 1) Opaque, Flat: 50 g/L, maximum.
      - 2) Opaque, Nonflat: 150 g/L, maximum.
      - 3) Opaque, High Gloss: 250 g/L, maximum.
    - e. Architectural coatings VOC limits of the State in which the Project is located.
  - 2. 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.
- C. Flammability: Comply with applicable code for surface burning characteristics.
- D. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect/Engineer from the manufacturer's full line.
- E. Colors: To be selected from manufacturer's full range of available colors.
  - 1. Selection to be made by Architect/Engineer after award of contract.
  - 2. Allow for minimum of three colors for each system, unless otherwise indicated, without additional cost to Owner.
  - 3. Extend colors to surface edges; colors may change at any edge as directed by Architect/Engineer.

# 2.03 PAINT SYSTEMS

- A. Wood rainscreen siding boards and battens, Opague Stain, 3 Coat:
  - 1. One coat of water-based primer/sealer; MPI #6.
  - 2. Two coats of water-based solid hide stain; MPI #16.
    - a. Color and Sheen:
      - 1) Rainscreen Siding Boards: Match color and sheen of finish on rainscreen boards at RiverEdge Park.
      - 2) Rainscreen Battens: Black, satin.
- B. Galvanized Metals, Alkyd, 3 Coat:
  - 1. One coat galvanize primer.
- C. Galvanized Metals, including exposed surfaces of columns, base plates and connections, Latex, 3 Coat:
  - 1. One coat galvanize primer; MPI #134.
  - 2. Semi-gloss: Two coats of latex enamel; MPI #11.

a. Color: White.

# PART 3 EXECUTION

## 3.01 EXAMINATION

- A. Do not begin application of paints and finishes until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- D. If substrate preparation is the responsibility of another installer, notify Architect/Engineer of unsatisfactory preparation before proceeding.
- E. Test shop-applied primer for compatibility with subsequent cover materials.
- F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  - 1. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

# 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 or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. 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.
- G. Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections.

# 3.03 APPLICATION

- A. Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.

- E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.
- F. Sand wood and metal surfaces lightly between coats to achieve required finish.
- G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

### 3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

## 3.05 PROTECTION

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

## SECTION 10 14 00 SIGNAGE

## PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Building identification signs.

## 1.02 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.
- C. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

# 1.03 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Dimensional Letter Signs:
  - 1. Cosco Industries; Cast Aluminum: www.coscoarchitecturalsigns.com.
  - 2. Gemini Signage; www.geminimade.com/signage.
  - 3. Substitutions: See Section 01 60 00 Product Requirements.

# 2.02 SIGNAGE APPLICATIONS

- A. Building Identification Signs:
  - 1. Use individual metal dimensional letters.
  - 2. Mount on outside wall in location indicated on drawings.

# 2.03 DIMENSIONAL LETTERS

- A. Metal Letters:
  - 1. Metal: Aluminum casting.
  - 2. Metal Thickness: 1 inch minimum.
  - 3. Letter Height: 16 inches.
  - 4. Text and Typeface:
    - a. Character Font: Match character fon of dimensional letter sign at RiverEdge Park.
    - b. Character Case: Upper case only.
  - 5. Finish: Match color and sheen of dimensional letter sign at RiverEdge Park.
  - 6. Mounting: Concealed screws.

# 2.04 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

# 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install neatly, with horizontal edges level.
- C. Protect from damage until Date of Substantial Completion; repair or replace damaged items. **END OF SECTION**

### SECTION 31 23 16 EXCAVATION

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Excavating for building volume below grade, footings, slabs-on-grade, and utilities within the building.

#### 1.02 SEQUENCING AND SCHEDULING

A. Schedule, sequence and coordinate the work of this section, and prior and subsequent portions of the work, in accordance with the requirements of Section 01 4000 - Quality Requirements.

#### PART 2 PRODUCTS

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

A. Verify that survey bench mark and intended elevations for the work are as indicated.

#### 3.02 EXCAVATING

- A. Excavate to accommodate new structures and construction operations.
- B. Notify Architect/Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- C. Do not interfere with 45 degree bearing splay of foundations.
- D. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume.
- E. Provide temporary means and methods, as required, to remove all water from excavations until directed by Architect/Engineer. Remove and replace soils deemed suitable by classification and which are excessively moist due to lack of dewatering or surface water control.
- F. Stockpile excavated material to be re-used in area designated on site .

#### 3.03 FIELD QUALITY CONTROL

- A. See Section 01 40 00 Quality Requirements, for general requirements for field inspection and testing.
- B. Provide for visual inspection of load-bearing excavated surfaces by Architect/Engineer before placement of foundations.

#### 3.04 PROTECTION

- A. Divert surface flow from rains or water discharges from the excavation.
- B. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
- C. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition.

- D. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- E. Keep excavations free of standing water and completely free of water during concrete placement. END OF SECTION

#### SECTION 31 23 23 FILL

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

A. Filling, backfilling, and compacting for footings, slabs-on-grade, and utilities within the building.

### 1.02 RELATED REQUIREMENTS

A. Section 31 23 16 - Excavation: Removal and handling of soil to be re-used.

## 1.03 DEFINITIONS

A. Finish Grade Elevations: Indicated on Civil Engineering drawings.

## 1.04 REFERENCE STANDARDS

- A. ASTM C136/C136M Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2019.
- B. SSRBC Standard Specifications for Road and Bridge Construction, adopted by the Illinois Department of Transportation on January 1, 2002, including applicable current Supplemental Specifications and Special Provisions.

## 1.05 SUBMITTALS

## 1.06 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where indicated.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.

#### 1.07 SEQUENCING AND SCHEDULING

A. Schedule, sequence and coordinate the work of this section, and prior and subsequent portions of the work, in accordance with the requirements of Section 01 40 00 - Quality Requirements.

# PART 2 PRODUCTS

#### 2.01 FILL MATERIALS

- A. General Fill: Subsoil excavated on-site.
  - 1. Graded.
  - 2. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris, waste, frozen materials, vegetable and other deleterious matter.
- B. Structural Fill: Subsoil excavated on-site.
  - 1. Graded.
  - 2. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris, waste frozen materials, vegetable and other deleterious matter.

- C. Granular Fill: Crushed stone conforming to SSRBC; CA-6.
- D. Granular Fill Subdrainage Bedding: Pea gravel; natural stone; washed, free of clay, shale, organic matter.
  - 1. Graded in accordance with ASTM C136/C136M, within the following limits:
    - a. Minimum Size: 1/4 inch.
    - b. Maximum Size: 5/8 inch.
- E. Sand: Natural river or bank sand; free of silt, clay, loam, friable or soluble materials, and organic matter.

# 2.02 SOURCE QUALITY CONTROL

A. If tests indicate materials do not meet specified requirements, change material and retest.

## PART 3 EXECUTION

## 3.01 EXAMINATION

- A. Verify that survey bench marks and intended elevations for the Work are as indicated.
- B. Identify required lines, levels, contours, and datum locations.
- C. Verify structural ability of unsupported walls to support imposed loads by the fill.
- D. Verify areas to be filled are not compromised with surface or ground water.

### 3.02 PREPARATION

- A. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

# 3.03 FILLING

- A. Fill to contours and elevations indicated using unfrozen materials.
- B. Fill up to subgrade elevations unless otherwise indicated.
- C. Employ a placement method that does not disturb or damage other work.
- D. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.
- G. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches compacted depth.

- H. Slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- I. Correct areas that are over-excavated.
  - 1. Load-bearing foundation surfaces: Use structural fill, flush to required elevation, compacted to 98 percent of maximum dry density.
  - 2. Other areas: Use general fill, flush to required elevation, compacted to minimum 97 percent of maximum dry density.
- J. Compaction Density Unless Otherwise Specified or Indicated:
  - 1. Under slabs-on-grade and similar construction: 95 percent of maximum dry density.
  - 2. At areas under building foundations: 98 percent of maximum dry density.
- K. Reshape and re-compact fills subjected to vehicular traffic.
- L. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Architect/Engineer. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

# 3.04 FILL AT SPECIFIC LOCATIONS

- A. Under Interior Slabs-On-Grade:
  - 1. Use granular fill.
  - 2. Compact to 95 percent of maximum dry density.
- B. At Foundation Walls and Footings:
  - 1. Do not backfill against unsupported foundation walls.
- C. Over Buried Utility Piping and Conduits in Trenches:
  - 1. Cover with general fill.
  - 2. Fill up to subgrade elevation.
  - 3. Compact in maximum 8 inch lifts to 95 percent of maximum dry density.

# 3.05 TOLERANCES

A. Top Surface of General Filling: Plus or minus 1 inch from required elevations.

# 3.06 CLEANING

A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

### SECTION 33 41 00 SUBDRAINAGE

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Downspout subdrainage systems.
- B. Bedding aggregate.

#### 1.02 RELATED REQUIREMENTS

- A. Section 31 23 16 Excavation: Excavating for subdrainage system piping and bedding aggregate.
- B. Section 31 23 23 Fill: Backfilling over subdrainage piping and aggregate, up to subgrade elevation.

## 1.03 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on pipe drainage products and pipe accessories.
- C. Shop Drawings: Indicate dimensions, layout of piping, high and low points of pipe inverts, gradient of slope between corners and intersections.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Project Record Documents: Record location of pipe runs, connections, cleanouts and principal invert elevations.

# PART 2 PRODUCTS

#### 2.01 REGULATORY REQUIREMENTS

A. Comply with applicable code for materials and installation of the work of this section.

#### 2.02 PIPE MATERIALS

- A. Corrugated HDPE Plastic Tubing: Flexible type; 4 inch diameter, with required fittings.
- B. Use unperforated pipe for subdrainage system.

#### 2.03 AGGREGATE AND BEDDING

- A. Filter Aggregate and Bedding Material: Granular fill as specified in Section 31 23 23.
- B. Filter Sand and Bedding Material: Sand as specified in Section 31 23 23.
- C. Fill Material: Standard Fill as specified in Section 31 23 23.

#### 2.04 ACCESSORIES

- A. Pipe Couplings: Solid plastic.
- B. Pop-up Drainage Emitter: Solid plastic.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on shop drawings.

## 3.02 PREPARATION

- A. Hand trim excavations to required elevations. Correct over-excavation with Type CA-6 aggregate.
- B. Remove large stones or other hard matter that could damage drainage piping or impede consistent backfilling or compaction.

## 3.03 INSTALLATION

- A. Install and join pipe and pipe fittings in accordance with pipe manufacturer's instructions.
- B. Place drainage pipe on clean cut subsoil.
- C. Lay pipe to slope gradients noted on shop drawings; with maximum variation from true slope of 1/8 inch in 10 feet.
- D. Install pipe couplings.
- E. Place aggregate in maximum 4 inch lifts, consolidating each lift.
- F. Refer to Section 31 23 23 for compaction requirements. Do not displace or damage pipe when compacting.
- G. Place fill over drainage pipe and bedding aggregate cover and compact.
- H. Connect to downspouts and pop-up drain emitters.

# 3.04 PROTECTION

A. Protect pipe and aggregate cover from damage or displacement until backfilling operation begins. END OF SECTION