

BID PACKAGE

PAVING IMPROVEMENTS AND REPAIRS

FOR THE

Zanesville City School District

June 30, 2025

NOTICE TO BIDDERS

Sealed bids will be received by the Zanesville City School District for summer paving improvements and repairs.

The bids will be received at the Board of Education office at:

956 Moxahala Avenue
Zanesville, Ohio 43701

until 11:00 a.m. local time on July 11, 2025 and will be read publicly and recorded immediately thereafter. Late bids will not be accepted and will be returned unopened. Faxed and emailed bids are not permitted.

The estimated Cost of the Work for the project is as follows: \$210,000.

The date of substantial completion for the Work is August 15, 2025.

Bids shall be addressed to the Treasurer of the Zanesville City School District in a sealed opaque envelope and be clearly marked on the envelope as a bid for the applicable improvements for which the bidder is submitting its bid along with the bidder's name.

The contract documents, including the instructions to bidders, copies of the drawings, specifications, project manual, bid form, forms of contract and bond, and addenda may be obtained on the School District's website at:

<https://www.zanesville.k12.oh.us/>

Inquiries regarding the bidding documents, including requests for clarifications or interpretations or proposal of substitutions, shall be submitted by e-mail to Mike Young, Treasurer, at: myoung@zanesville.k12.oh.us. The subject line of the e-mail should clearly read "Bids for summer paving improvements and repairs".

There will be a Pre-Bid Meeting for all Bidders at 11:00 a.m. local time on July 7, 2025 at Zanesville Middle School, 1429 Blue Avenue, Zanesville, Ohio 43701. This meeting will be followed by a tour of the project sites.

This Notice to Bidders may be obtained on the Owner's website at:

<https://www.zanesville.k12.oh.us/>

Publication date: June 30 and July 7.

Instructions to Bidders

OWNER:

Zanesville City School District
956 Moxahala Avenue
Zanesville, Ohio 43701

PROJECT:

Summer Paving Improvements and Repairs

INQUIRIES REGARDING BIDDING DOCUMENTS:

Unless provided otherwise in the Notice to Bidders, inquiries regarding the Bidding Documents, including requests for clarifications or interpretations, request for information, or proposal of substitutions shall be submitted to the Owner by e-mail at:

myoung@zanesville.k12.oh.us

The subject line of the e-mail should clearly reference the Project named above.

ARTICLE 1. DEFINITIONS

1.1 Bidding Documents include the Bidding Requirements and the Contract Documents plus any other item designated as a Bidding Document. The Bidding Requirements consist of the Notice to Bidders, Instructions to Bidders, the Bid Form, Bid Guaranty, bond (as required under Section 4.2.1), and other sample bidding and contract forms. The Contract Documents, which are inclusive of the Bidding Requirements, are enumerated and defined in the Owner-Contractor Agreement. Definitions set forth in the Owner-Contractor Agreement or in other Contract Documents are applicable to the Bidding Documents.

1.2 Addenda are written or graphic instruments issued by the Owner prior to the opening of Bids which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

1.3 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

1.4 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

1.5 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted on the Bid Form in accordance with the Bidding Documents.

1.6 A Bidder is a person or entity who submits a Bid.

1.7 The Bid Form is the form furnished in the Bidding Documents that is to be completed, signed, and submitted containing the Bidder's Bid.

1.8 Bid Guaranty means a bond or other instrument of security authorized by Ohio Revised Code Section 153.54 submitted with the Bid in accordance with Section 4.2 to provide assurance that the Bidder will execute the Agreement.

1.9 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

ARTICLE 2. BIDDER'S REPRESENTATIONS

2.1 The Bidder by making a Bid represents that:

2.1.1 The Bidder has read and understands the Bidding Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

2.1.2 The Bid is made in compliance with the Bidding Documents.

2.1.3 The Bidder has visited the site and surrounding area, become familiar with the conditions under which the Work is to be performed (including but not limited to the condition, layout and nature of the site and surrounding area; the availability and cost of labor; the availability and cost of materials, supplies and equipment; the costs of temporary utilities required in the Bid; the cost of any required permit or license; the usual weather conditions of the Project location; conditions bearing upon transportation, disposal, handling and storage of equipment, materials and waste; and subsurface and concealed physical conditions and related information provided in the Bidding Documents) and has correlated the Bidder's personal observations with the requirements of Bidding Documents.

2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

2.2 By submitting its Bid, the Bidder understands and agrees that the Contract Sum, based on its Bid and as amended by Change Orders, shall cover all amounts due from the Owner resulting from interference, disruption, hindrance or delay caused by or between Separate Contractors or their agents and employees.

2.3 The Bidder agrees that the Bidder will make no request for additional compensation or mitigation of Liquidated Damages for any such interference, disruption, hindrance or delay, and will accept as full satisfaction an extension of the Contract Time which may be provided by the Owner in accordance with the Bidding Documents.

ARTICLE 3. BIDDING DOCUMENTS

3.1 COPIES

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Notice to Bidders in the number and for the dollar amount, if any, stated therein.

3.1.2 Bidders shall use complete sets of Bidding Documents in preparing Bids; the Owner does not assume responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.1.3 The Owner may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Owner errors, inconsistencies or ambiguities discovered.

3.2.2 Bidders requiring clarification or interpretation of the Bidding Documents shall submit a written request for information at least seven (7) days prior to the date for receipt of Bids. By submitting its Bid, each Bidder represents and agrees, based upon its careful and diligent review of the Bidding Documents, that it is not aware of any conflicts, inconsistencies, errors or omissions in the Bidding Documents for which it has not timely notified the Owner. Bidders who fail to timely provide notification and to request clarification will be expected to overcome such conditions without additional compensation.

3.2.3 Interpretations, corrections and changes of the Bidding Documents if determined by the Owner to be warranted will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

3.2.4 In interpreting the Bidding Documents, words describing materials that have a well-known technical or trade meaning, unless otherwise defined in the Bidding Documents, shall be construed in accordance with the well-known meaning recognized by the trade.

3.2.5 When the Bidding Documents refer to a period of time by a number of days, it excludes the first day and includes the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted and the period shall end on the next day which is not a Saturday, Sunday, or legal holiday. The term "day" as used in the Instructions to Bidders shall mean a calendar day unless otherwise noted.

3.2.6 Bidder is required to comply with all requirements of the Bidding Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder that might indicate a contrary intention.

3.3 SUBSTITUTIONS

3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been submitted at least seven (7) days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted, the reason for the requested substitution, a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, drawings, performance and test data, any other information necessary for an evaluation, and a certification from the Bidder that the proposed item is equal in quality and all aspects of performance and appearance, to the item specified. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of Separate Contractors that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Owner's decision of approval or disapproval of a proposed substitution shall be final.

3.3.3 If the Owner approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Approvals made in any other manner will not be binding, and Bidders shall not rely upon them. The Owner's decision will be final.

3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

3.4 ADDENDA

3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of Bidding Documents and to plan rooms where copies of the Bidding Documents are maintained. It is therefore imperative that Bidders provide full and accurate contact information to the Owner, including e-mail addresses. The Addenda may be delivered by e-mail, facsimile, posted to the Owner's website set forth in the Notice to Bidders, posted to an FTP site, or otherwise furnished to each registered plan holder. Addenda will be deemed to have been validly delivered if emailed or otherwise furnished to each firm's contact person of record.

3.4.2 Notwithstanding anything to the contrary in Section 3.4.1, all Bidders will be presumed to have actual knowledge of all Addenda distributed in the manner set forth in Section 3.4.1, and Bidders shall not avail themselves of incomplete knowledge and/or lack of familiarity of the Bidding Documents and any Addenda thereto resulting from the Bidder's failure to register with and provide accurate contact information to the Owner, a Bidder's failure to check the Owner's website, or a Bidder's failure to otherwise ascertain delivery of an Addendum.

3.4.3 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

3.5 If an Addendum is issued within 72 hours prior to the published time for the opening of Bids (excluding Saturdays, Sundays, and legal holidays), then the time for opening of Bids shall be extended one week with no further advertising of Bids required.

3.5.1 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid Form. If the Bidder fails to acknowledge receipt of each Addendum, the Bid may be deemed non-responsive, unless the Bid amount clearly and unambiguously reflects receipt of the Addendum or the Addendum involves only a matter of form and does not affect the price, quantity or quality of the Work to be performed in any material manner.

3.6 BASIS OF DESIGN AND ACCEPTABLE COMPONENTS

3.6.1 The Bidding Documents may list components produced by specific manufacturers to denote kind, quality, or performance requirements. The component listed first is the basis of design component, and other listed components are acceptable components. If the Bidder includes an acceptable component in its Bid, the Bidder is responsible for the costs of coordination and modification required.

ARTICLE 4. BIDDING PROCEDURES

4.1 PREPARATION OF BIDS

4.1.1 The Bidder is strongly encouraged to attend any pre-bid meetings where questions will be received regarding the Bidding Documents. Each Bidder will be determined to have actual knowledge of all information provided or discussed at the pre-bid meeting, and additional compensation shall not be based upon the Bidder's failure to attend the pre-bid meeting which results in the Bidder's incomplete knowledge and familiarity of the Project requirements. If not given in the Notice to Bidders, the Owner shall issue notice of the time and place of any pre-bid meeting to each registered plan holder.

4.1.2 Bids shall be submitted on the forms included with the Bidding Documents.

4.1.3 The Owner may solicit Bids which combine two or more bid packages. The individual Base Bid amounts of each separate bid package need not total the combination Base Bid amount. The Owner reserves the right to accept or reject any or all separate Bids or combination Bids, in whole or in part, and in any order.

4.1.4 All blanks on the Bid Form shall be legibly filled in using a non-erasable medium, and interlineations, alterations and erasures must be initialed in ink by the signer of the Bid.

4.1.5 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern where the words are not ambiguous. When the Bidder's

intention and the meaning of the words are clear, omissions or misspellings of words shall not render the words ambiguous.

4.1.6 The wording on the Bid Form shall be used without change, alteration or addition. Any change in the wording or omission of specifying accompanying documents may cause the Bid to be rejected.

4.1.7 When an Alternate is listed on the Bid Form, the Bidder shall fill in the blank with an amount to add to or deduct from the Base Bid. Voluntary Alternates are prohibited from becoming the basis of the Contract award.

4.1.7.1 If no change in the Bid amount is required, indicate “No Change” or “\$0 dollars.”

4.1.7.2 Failure to make an entry, or an entry of “No Bid,” “N/A,” or similar entry for any Alternate shall cause the Bid to be nonresponsive if that Alternate is selected. If the Alternate is not selected, such an entry on that Alternate will not itself render a Bidder nonresponsive.

4.1.7.3 Failure to indicate a negative number will indicate the Bidder’s intent to increase the Base Bid by the amount entered in the applicable blank. Methods for indicating a negative number may include preceding the number by a minus sign, enclosing the number in parenthesis, or, when provided on the Bid Form, by circling “DEDUCT” or similar words.

4.1.8 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation. For a Bid submitted by an agent, the Owner may require submission of a current power of attorney certifying the agent’s authority to bind the Bidder. The Bidder may be required to provide evidence of legal authority to perform within the jurisdiction of the Work.

4.1.9 In determining which Bid is the lowest, the Owner shall consider the Base Bid and any Alternate or Alternates which the Owner decides to accept in the Owner’s sole discretion. The Owner shall have the right to accept Alternates in any order or combination as desired by the Owner and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted. The Bidder further understands and acknowledges that use of add and deduct Alternates is a long held customary practice in the construction industry in the State of Ohio. The Bidder understands that based on Alternates selected by the Owner, the Contract award to the lowest responsible Bidder may result in an award to a Bidder other than the Bidder that submitted the lowest Base Bid.

4.1.10 When two or more Bids are equal, in the whole, or in any part thereof, and are lower than any others, and the Owner has determined the Bidders to be responsive and responsible, the Owner may do either of the following in the Owner’s sole discretion: (1) accept either of such equal bids, but in no case shall the Work be divided between such Bidders, or (2) select one Bidder by lot in the presence of all Bidders in such manner as the Owner shall determine

and such selection shall be final, and if one of the Bidders refuses to participate in or fails to be present, the selection shall be made among the participating Bidders.

4.1.11 UNIT PRICES.

4.1.11.1 If Unit Prices are requested on the Bid Form, the amount of the scheduled quantities shall be included in the Base Bid amount. Unit prices shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the estimated quantities on the Bid Form and the actual quantities provided. If Unit Prices are stated to be sought only for informational purposes, they shall not be included in the Bid amount.

4.1.11.2 Unit Prices shall include all materials, equipment, labor, delivery, installation, and any other cost or expense, in connection with, or incidental to, the performance of that portion of the Work. Unit Prices shall not include the Contractor's fee on account of the associated Unit Price Work. The Bidder shall submit Unit Prices for all items listed.

4.1.11.3 Where there is a conflict between a Unit Price and the extension thereof made by the Bidder, the Unit Price shall govern and a corrected extension of such Unit Price shall be made.

4.1.11.4 The Bidder agrees that the Owner may increase, decrease or delete entirely the scheduled quantities of Work to be done and materials to be furnished after execution of the Contract.

4.1.12 ALLOWANCES

4.1.12.1 If allowances are provided in the Bidding Documents, including the Bid Form, the amount of each applicable allowance shall be included in the Base Bid amount. Allowances shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the amount of the allowance and the actual cost of the related Work provided.

4.2 BID GUARANTY/BOND

4.2.1 A Bid Guaranty payable to the Owner and meeting the requirements of Ohio Revised Code Section 153.54 shall be submitted with the Bidders Bid in the form of either (i) a bid guaranty and contract bond meeting the requirements of Ohio Revised Code Sections 153.54(A)(1), 153.54(B) and 153.571 or (ii) a certified check, cashier's check or letter of credit meeting the requirements of Ohio Revised Code Sections 153.54(A)(2) and 153.54(C). The Bid Guaranty shall serve as an assurance that the Bidder will, upon acceptance of the Bid by the Owner, comply with all conditions for the execution of the Contract within the time specified.

4.2.1.1 The amount of the bid guaranty and contract bond under Section 4.2.1(i) herein should be the full amount of the Bidder's Base Bid plus all add Alternates with no deduction for any deduct Alternates; a percentage is not acceptable. If the blank line on the bid guaranty and contract bond is not filled in, the penal sum will automatically be the full amount of the Base Bid plus all accepted Alternates. If an amount is inserted, then the failure to state an amount equal to or greater than the total of the Base Bid plus all add Alternates that are accepted

shall make the Bid non-responsive. If the successful Bidder provided a bid guaranty and contract bond as its Bid Guaranty under Section 4.2.1(i) and this Subsection 4.2.1.1, then the bid guaranty and contract bond shall become the performance and payment bond.

4.2.1.2 A certified check, cashier's check or letter of credit under Section 4.2.1(ii) herein should be equal to ten (10) percent of the Base Bid plus all add Alternates, and a failure to provide an amount equal to or greater than ten (10) percent of the total of the Base Bid plus all add Alternates that are accepted shall make the Bid non-responsive. Any letter of credit shall be revocable only by the Owner. Successful Bidders that provide a Bid Guaranty in the form of a certified check, cashier's check or letter of credit under Section 4.2.1(ii) and this subsection 4.2.1.2 shall, at the time of signing the Contract, provide a performance and payment bond meeting the requirements of Ohio Revised Code Sections 153.54(C) and 153.57.

4.2.1.3 A bond must be issued by a surety capable of demonstrating a record of competent underwriting, efficient management, adequate reserves, and sound investments. These criteria will be met if the surety currently has an A.M. Best Company Rating of "A-" or higher. A bond must be signed by an authorized agent of an acceptable surety bonding company and by the Bidder. The bond must be issued by a surety company authorized by the Ohio Department of Insurance to transact business in the State of Ohio and a copy of that insurance company's certificate of compliance should be attached to the bond. Each bond shall also be supported by a power of attorney for the agent signing for the surety.

4.2.2 FORFEITURE

4.2.2.1 If for any reason, other than as authorized by Sections 4.4 and 4.5 herein, the Bidder fails to execute the Contract, and the Owner awards the Contract to another subsequent Bidder which the Owner determines is the lowest responsive and responsible Bidder, the Bidder who failed to enter into a Contract shall be liable to the Owner for the difference between such Bidder's Bid amount and the Bid amount of the subsequent Bidder awarded the Contract, but not to exceed ten (10) percent of the Bid amount of the Bidder who failed to enter into a Contract. For purposes of this Section 4.2.2, the Bid amount shall mean the Base Bid and Alternates selected by the Owner.

4.2.2.2 If the subsequent Bidder also fails or refuses to execute the Contract, the liability of such subsequent Bidder shall be the amount of the difference between the Bid amount of such Subsequent Bidder and the Bid amount of another subsequent Bidder which the Owner determines is the lowest responsive and responsible Bidder, but not in excess of ten (10) percent of the Bid amount of the subsequent Bidder who failed to enter into a Contract. Liability on account of an award to each succeeding lowest responsible Bidder shall be determined in like manner.

4.2.2.3 If the Owner does not award the Contract to another Bidder which the Owner determines is the next lowest responsible Bidder, but resubmits the Project for bidding, the Bidder failing to execute the Contract shall be liable to the Owner for the costs in connection with the resubmission, of printing new Bidding Documents, required advertising and printing and mailing notices to prospective Bidders, but not to exceed ten percent (10%) of such Bidder's Bid amount.

4.3 SUBMISSION OF BIDS

4.3.1 The Bid, the Bid Guaranty and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

4.3.2 Bids shall be delivered to the designated location not later than the time and date for receipt of Bids. The cancellation or delay of the normal business activities of the Owner shall not be construed as an extension of the time and date for the receipt and opening of Bids. Bids received after the time and date for receipt of Bids will be returned unopened regardless of the reason for the delay.

4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids, regardless of the method of delivery. Ample time should be allowed for transmittal of Bids by mail or otherwise. Bidders should secure correct information relative to the probable time of arrival and distribution of mail at the place where Bids are to be opened.

4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted Bids will not be considered.

4.3.5 Form of Bid

4.3.5.1 Bids shall not contain a recapitulation of the Work to be done.

4.3.5.2 Before submitting a Bid, Bidders should carefully examine all of the Bidding Documents, visit the site and fully inform themselves as to all existing conditions and limitations that may affect the Work, including prevailing climate conditions and when the Work will be performed. Each Contractor shall be responsible for its portion of the Work regardless of what Drawing it may appear on or Specification division it is described in.

4.4 MODIFICATION OR WITHDRAWAL OF BID PRIOR TO BID OPENING

4.4.1 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A modification to the Bid amount shall be worded as not to reveal the amount of the original Bid, and changes shall provide an amount to be added to or subtracted from the Bid amount so that the final Bid amount can be determined only after the sealed envelope is opened.

Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders. The Bid Guaranty shall be in an amount sufficient for the Bid as resubmitted.

4.5 WITHDRAWAL OF BID AFTER BID OPENING

4.5.1 Following the Bid opening, withdrawal of Bids shall be governed by Ohio Revised Code Section 9.31.

4.5.2 A Bidder may withdraw a Bid from consideration after the Bid opening if the Bid amount was substantially lower than the amounts of other Bids, providing the Bid was submitted in good faith, and the reason for the Bid amount being substantially lower was a clerical mistake, as opposed to a judgment mistake, and was actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of Work, labor, or material made directly in the compilation of the Bid amount.

4.5.2.1 Notice of a request to withdraw a Bid shall be made in writing filed with the Owner within two (2) business days after the conclusion of the bid opening. The Owner reserves the right to request the Bidder to submit evidence substantiating the Bidder's request to withdraw the Bid.

4.5.2.2 No Bid may be withdrawn under Section 4.5.2 which would result in awarding a Contract involving the same item on another Bid to the same Bidder.

4.5.3 If a Bidder withdraws its Bid under Section 4.5.2, the Owner may award the Contract to the next lowest responsive and responsible Bidder, or reject all Bids and rebid the Project. In the event the Owner rebids the Project, the withdrawing Bidder shall pay the costs, in connection with the re-bidding, of printing new Bidding Documents, required advertising, and printing and mailing of notices to prospective Bidders, if the Owner finds that these costs would not have been incurred but for the withdrawal.

4.5.4 If the Owner contests the right of a Bidder to withdraw a Bid pursuant to Section 4.5.2, it shall hold a hearing within ten (10) days after the Bid opening and the Owner shall issue an order allowing or denying the claim of this right within five (5) days after the hearing is concluded. The Owner shall give the withdrawing Bidder timely notice of the time and place of the hearing. The Owner shall make a stenographic record of all testimony, other evidence, and rulings on the admissibility of evidence presented at the hearing, and the Bidder shall pay the costs of the hearing. Pursuant to Ohio Revised Code Section 119.12, the Bidder may appeal the order of the Owner.

4.5.5 In the event the Owner denies the request for withdrawal and the Bidder elects to appeal or otherwise refuses to perform the Contract, the Owner may reject all Bids or award the Contract to the next lowest responsive and responsible Bidder.

4.5.6 A Bidder who is permitted to withdraw a Bid under Section 4.5.2 shall not supply material or labor to, or perform a subcontract or other work for, the person to whom the Contract is awarded, or otherwise benefit, directly or indirectly, from the performance of the Project for which the withdrawn Bid was submitted, without the Owner's prior written consent. The person to whom the Contract was awarded and the withdrawing Bidder are jointly liable to the Owner in an amount equal to any compensation paid to or for the benefit of the withdrawing Bidder without such approval, in addition to the penalty provided for in Ohio Revised Code Section 2913.31.

4.5.7 A request for a withdrawal of a Bid that is made more than two business days after the conclusion of the Bid opening shall be subject to Section 4.2.2 herein.

ARTICLE 5. CONSIDERATION OF BIDS

5.1 OPENING OF BIDS

5.1.1 Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders. Bids will be recorded showing the date and time received. Bids received prior to the time of opening will be securely kept, unopened. No responsibility will be accepted for the premature opening of a Bid not properly addressed and identified.

5.1.2 The public opening and reading of Bids is for informational purposes only and is not to be construed as an acceptance or rejection of any Bid submitted.

5.1.3 The contents of the Bid envelope shall be a public record and open for inspection, upon request, at any time after the completion of the entire Bid opening, except for any information that is not a public record under Ohio law.

5.1.4 All Bids shall remain open for acceptance for sixty (60) days following the day of the Bid opening, but the Owner may, in its sole discretion, release any Bid and return the Bid Guaranty prior to that date.

5.2 BID EVALUATION

5.2.1 The Owner shall have the right in its sole discretion to reject any or all Bids and submit the Project or any components thereof for rebidding. A Bid not accompanied by a required Bid Guaranty or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

5.2.2 The Owner will have the right to take such steps as it deems necessary to determine the responsibility of the Bidder and the ability of the Bidder to perform the Work, and the Bidder shall furnish the Owner such data for this purpose as Owner may request. Such data may include but not be limited to:

5.2.2.1 Overall experience of the Bidder, including number of years in business under present and former business names. If the Bidder's management operates or has operated another construction company, the Owner may consider the work history of that company in determining the overall experience of the Bidder;

5.2.2.2 Complete listing of all ongoing and completed public and private construction projects of the Bidder in the last three years, including the nature and value of each contract and a name/address/phone number for each owner;

5.2.2.3 Complete listing of any public or private construction projects for which the Bidder has been declared in default; also, any EPA, OSHA or other regulating entity issues or citations in the last ten (10) years;

5.2.2.4 Certified financial statement, bank references, and information concerning Bidder as reported by Dun & Bradstreet and other similar reporting services which is not a public record under Ohio Revised Code 149.43;

5.2.2.5 Description of relevant equipment and facilities of the Bidder;

5.2.2.6 Description of the management experience of the Bidder's project manager(s) and superintendent(s);

5.2.2.7 Complete list of Subcontractors which the Bidder proposes to employ on the Project;

5.2.2.8 Current Ohio Workers' Compensation Certificate;

5.2.2.9 If the Bidder is a foreign corporation, i.e., not incorporated under the laws of Ohio, a Certificate of Good Standing from the Secretary of State showing the right of the Bidder to do business in the State; or, if the Bidder is a person or partnership, the Bidder has filed with the Secretary of State a Power of Attorney designating the Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action;

5.2.2.10 Any prior rejections of a Bid submitted by the Bidder on a public project.

5.2.3 Failure to timely submit the requested information may be grounds for rejecting the Bid.

5.2.4 The right is reserved to reject Bids where an investigation of the available evidence or information does not satisfy the Owner that the Bidder is a responsible Bidder.

5.2.5 Bids which contain qualifications or conditions that are contrary to the text or intent of the Bidding Documents, and which are inserted in the Bid or submitted subsequent to the Bid opening for the purpose of limiting or otherwise qualifying the obligations of the Bidder, outside of the text or intent of the Bidding Documents, may be subject to disqualification.

5.2.6 The Owner reserves the right to reject the Bid of a Bidder who has previously failed to perform properly or to complete Contracts of a similar nature on time, who is not in a position to perform the Contract, or who has habitually, and without just cause neglected the payment of bills or otherwise disregarded its obligations to subcontractors, material persons, or employees.

5.2.7 The Owner reserves the right to waive, or to allow any Bidder a reasonable opportunity to cure, a minor irregularity or technical deficiency in a Bid, provided the irregularity or deficiency does not affect the Bid amount or otherwise give the Bidder a competitive advantage.

5.2.8 The Bidder authorizes the Owner and its representatives to contact the owners and professionals (including but not limited to architects, engineers and construction managers) on projects on which the Bidder has worked. Bidder shall provide the full contact information for such owners and professionals, and Bidder authorizes such owners and

professionals to provide the Owner with a candid evaluation of the Bidder's performance. By submitting its Bid, the Bidder agrees that if it or any person, directly or indirectly, on its behalf or for its benefit brings an action against any of such owners or professional or the employees of any of them as a result of or related to such candid evaluation, the Bidder will indemnify and hold harmless such owners and professionals and the employees of any of them from any claims whether or not proven that are part of or are related to such action and from all legal fees and expenses incurred by any of them arising out of or related to such legal action. This obligation is expressly intended for the benefit of such owners and professionals, and the employees of each of them.

5.3 ACCEPTANCE OF BID (AWARD)

5.3.1 Subject to the right of the Owner to reject each and every Bid, the Owner will award the Contract for the Work to the lowest responsible Bidder. In determining which Bid is the lowest responsible Bid, the Owner may take into consideration not only the amount of the Base Bid and the Bids for any Alternate the Owner determines to accept but such of the following criteria as Owner, in its discretion, deems appropriate, and Owner may give such weight thereto as it deems appropriate:

5.3.1.1 The Bidder's financial condition and ability to complete the Contract successfully without resort to its surety;

5.3.1.2 The Bidder's prior experience, including experience with similar work on comparable or more complex projects;

5.3.1.3 The management skills of the Bidder, including the competency and experience of the Bidder's proposed supervisory and management staff and the capability of the Bidder to construct and manage the entire Project, including but not limited to the plumbing, fire protection, heating, ventilating and air conditioning and electrical branches or classes of the Work;

5.3.1.4 The Bidder's prior history for the successful and timely completion of projects;

5.3.1.5 The Bidder's equipment and facilities;

5.3.1.6 The adequacy, in numbers and experience, of the Bidder's work force to complete the Contract successfully and on time;

5.3.1.7 The Bidder's prior experience on other projects of the Owner, including the Bidder's demonstrated ability to complete its work on these projects in accordance with the Bidding Documents and on time;

5.3.1.8 The Bidder's history of compliance with federal, state, and local laws, rules, and regulations.

5.3.1.9 A Bidder who submits a Bid for Work as a mechanical contractor or which includes mechanical contracting (i.e., electrical, plumbing, hydronics, refrigeration or

heating, ventilating and air conditioning) may be required to submit evidence of licensure of the Bidder or applicable Subcontractor by the Ohio Construction Industry Licensing Board;

5.3.1.10 The Owner's prior experience with the Bidder's surety;

5.3.1.11 The Bidder's interest in the Project as evidenced by its attendance at any pre-bid meetings or conferences for Bidder;

5.3.1.12 The Bidder's ability to work with the Owner and other Project personnel as a willing, cooperative and successful team member;

5.3.1.13 The Bidder shall certify it has not had a professional license revoked in the past five years in Ohio or in any other state;

5.3.1.14 The Bidder shall certify it has not been debarred from any public contract, federal, state or local, in the past five years;

5.3.1.15 Other essential factors as deemed appropriate by the Owner;

5.3.1.16 The foregoing information with respect to each of the subcontractors and suppliers that the Bidder intends to use on the Project.

ARTICLE 6. POST-BID INFORMATION

6.1 CONTRACTOR'S QUALIFICATION STATEMENT

Bidders to whom award of a Contract is under consideration shall submit to the Owner as promptly as possible, but no later than 48 business hours after Bid opening, a statement of the Bidder's qualifications. Unless a qualifications form is contained in the Project manual, Bidder shall use the AIA A305 form. Bidder shall thereafter promptly provide to the Owner not later than 24 business hours after request such additional information as the Owner may reasonably request regarding the Bidder's responsibility.

6.2 SUBMITTALS

6.2.1 The Bidder shall within 48 hours after Bid opening, or such longer time as may be permitted by Owner, furnish to the Owner in writing the following information. Failure to submit this information within the required time may be grounds for rejection of the Bid:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work;
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work;
- .4 the list of all proposed Subcontractors and suppliers; and

- .5 the breakdown of the labor and material for the Project, including the sum thereof.

6.2.2 The Bidder will be required to establish to the satisfaction of the Owner the reliability and responsibility of the persons or entities proposed to furnish materials and perform the Work described in the Bidding Documents.

6.2.3 Prior to the execution of the Contract, the Owner will notify the Bidder in writing if, after due investigation, the Owner has reasonable objection to a person or entity proposed by the Bidder. If the Owner has reasonable objection to a proposed person or entity, the Bidder shall submit an acceptable substitute person or entity at no additional cost to Owner.

6.2.4 Persons and entities proposed by the Bidder and to whom the Owner has made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner.

6.3 NOTICE OF INTENT TO AWARD

6.3.1 The Owner shall notify the apparent successful Bidder of the Owner's intent to award the Bid of the Bidder. Following such notice, the Bidder shall submit the information listed in Section 8.4 as well as such additional information as required by Owner. The Owner reserves the right to rescind the notice if the Owner determines the notice was issued in error. The failure to submit required information or to meet the conditions specified in Section 8.4 herein on a timely basis may result in the determination that the Bidder is not the lowest responsible Bidder.

6.3.2 It is understood that issuance of the notice by the Owner does not constitute the formation of a Contract between Owner and Bidder, and it is further understood that acceptance by the Owner's governing body of the Bidder's Bid and the execution of a formal written Agreement by both the Owner and Bidder, which Agreement must contain a fiscal officer certificate as required by statute, are conditions to the formation of a Contract.

ARTICLE 7. FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on the Form of Agreement Between Owner and Contractor as contained in the Bidding Documents.

ARTICLE 8. SUPPLEMENTAL BIDDING INFORMATION

8.1 Communications for the administration of the Contract shall be as set forth in the Contract and, in general, shall be through the Owner.

8.2 If the Owner and a Bidder enter into a contract within 60 days of the Bid opening, the Contractor shall pay any and all material, labor or Subcontract cost increases which have occurred since the Bid opening. Contracts entered into beyond the 60-day period may contain additional amounts for cost increases if the cause for delay is not the fault of the Contractor.

8.3 By submitting a Bid, the Bidder represents that the Bidder is not subject to a finding for recovery under Ohio Revised Code Section 9.24, or that Bidder has taken the appropriate remedial steps required under Ohio Revised Code Section 9.24, or otherwise qualifies under this section.

8.4 Prior to the signing of a Contract, the successful Bidder shall furnish:

8.4.1 Certificates of insurance meeting the requirement of the Contract.

8.4.2 Performance and payment bond (if required by, and not already provided in accordance with, Section 4.2 herein).

8.4.3 Ohio Workers' Compensation Certificates.

8.4.4 If a Bidder is a foreign corporation (e.g., not incorporated under the laws of Ohio) it must submit a Certificate of Good Standing from the Ohio Secretary of State showing the right of the Bidder to do business in the state of Ohio.

8.4.5 If a Bidder is an individual or partnership, nonresident of the State, it must submit a Power of Attorney designating the Ohio Secretary of State as the Bidder's agent for accepting service of summons in any action brought under ORC Section 153.05 or under ORC Sections 4123.01 to 4123.94, inclusive.

8.4.6 Tax affidavit (Ohio Revised Code Section 5719.042).

8.4.7 Proof of enrollment in good standing in the Ohio Bureau of Workers' Compensation ("BWC") Drug-Free Workplace Program ("DFWP") or an equivalent BWC approved DFWP in accordance with Ohio Revised Code Sections 153.03 to 153.031.

8.5 The award of the Contract and the execution of the Contract are based upon the expectation that the lowest responsible Bidder will comply with the conditions of Section 8.4. Noncompliance with the conditions within five (5) days of the date that the Bidder is notified of the notice of intent to award the Contract in accordance with Section 6.3 herein shall be cause for the Owner to cancel the award for the Bidder's lack of responsibility and award the Contract to another Bidder which the Owner determines is the next lowest responsive and responsible Bidder, or resubmit the Contract for bidding, at the discretion of the Owner. The Owner may extend the time for compliance with the conditions for good cause shown. No extension shall operate as a waiver of the conditions precedent for execution of the Contract.

BID FORM

Project: Zanesville School District, Summer Paving Improvements and Repairs

The undersigned, having read and examined the premises and the Contract Documents, including without limitation the Drawings and Specifications, prepared for the above-referenced Project, and the following Addenda:

Addendum Number	Date of Receipt
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

submits its Bid for the Project.

The Contractor acknowledges that all Work shall be completed within the time established in the Contract Documents, and that each applicable portion of the Work shall be completed upon the respective milestone completion dates, unless an extension of time is granted in accordance with the Contract Documents.

The undersigned Bidder proposes to perform all Work for the applicable Contract, in accordance with the Contract Documents, for the following sums:

ITEM 1. BASE BID

Middle & High School Asphalt Overlay: \$_____

CB Concrete Surround Repair (7 EA.): \$_____

Raise 2 CB to .5" below New Asphalt: \$_____

New FD Asphalt Area. Includes adjustment of CB: \$_____

Include asphalt patch cost in Item 1

TOTAL FOR ALL LABOR, MATERIALS AND ALLOWANCE, for the sum of

\$_____

Sum in words:_____

ITEM 2. ALTERNATES

ALTERNATE 1: Mill-Overlay Track to maintain a 1% slope.

If Alternate is accepted: ADD TO/DEDUCT FROM Base Bid (Circle appropriate choice):

\$ _____

Sum in words: _____

ALTERNATE 2: Build Basketball Court Area.

If Alternate is accepted: ADD TO/DEDUCT FROM Base Bid (Circle appropriate choice):

\$ _____

Sum in words: _____

ALTERNATE 3: Concrete Sidewalk Repair.

If Alternate is accepted: ADD TO/DEDUCT FROM Base Bid (Circle appropriate choice):

\$ _____

Sum in words: _____

ITEM 3. UNIT PRICES

	<u>Description</u>	<u>Unit Price/Measure</u>
A.	Add FD Patching	\$_____/SFT
B.	Add 3" patching	\$_____/SFT
C.	Add Sidewalk patching	\$_____/SFT

BIDDER'S CERTIFICATION

The Bidder hereby acknowledges that the following representations in this Bid are material and not mere recitals:

1. Bidder has read and understands the Contract Documents and agrees to comply with all requirements of the Contract Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.
2. The Bidder represents that the Bid is based upon the standards specified by the Contract Documents.
3. The Bidder has visited the Project site, become familiar with local conditions and has correlated personal observations about the requirements of the Contract Documents. The Bidder has no outstanding questions regarding the interpretation of the Contract Documents.
4. The Bidder understands that the award of separate contracts for the Project will require sequential, coordinated and interrelated operations which may involve interference, disruption, hindrance or delay in the progress of the Bidder's Work. The Bidder agrees that the Contract price, as amended from time to time by Change Order, shall cover all amounts due from the Owner resulting from interference, disruption, hindrance or delay caused by or between Contractors or their agents and employees. The Bidder agrees that any such interference, disruption, hindrance or delay is within the contemplation of the Bidder and the Owner and that the Contractor's sole remedy for such interference, disruption, hindrance or delay shall be an extension of time in accordance with the Contract Documents. This provision is intended to be, and shall be construed as, consistent with and not in conflict with, Section 4113.62, ORC, to the fullest extent permitted.
5. The Bidder and each person signing on behalf of the Bidder certifies, and in the case of a joint or combined Bid, each party thereto certifies as to such party's organization, under penalty of perjury, that to the best of the undersigned's knowledge and belief: (a) the Base Bid, any Unit Prices and any Alternate Bid in the Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate Bid with any other Bidder; (b) unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate Bid in the Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to the Bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices or Alternate Bid; (c) no attempt has been made or will be made by the Bidder to induce any other individual, partnership or corporation to submit or not to submit a Bid for the purpose of restricting competition.
6. Bidder will enter into and execute the Agreement with the Owner, if a Contract is awarded on the basis of this Bid, and if the Bidder does not execute an Agreement for any reason, other than as authorized by law, the Bidder and the Bidder's Surety are liable to the Owner as provided in the Ohio Revised Code and as applicable to the Owner.
7. Bidder certifies that the upon the award of a Contract, it will make a good faith effort to ensure that all of its employees, while working on the site of the Project, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.
8. Bidder agrees to furnish any information requested by the Owner to evaluate the responsibility of the Bidder.
9. The Bidder certifies that upon the execution of the Contract, the Contractor shall be enrolled in good standing in the Ohio Bureau of Workers' Compensation Drug-Free Workplace Program (DFWP) or an equivalent BWC approved DFWP throughout the entire Project, in accordance with

Ohio Revised Code Sections 153.03 to 153.031. The Bidder acknowledges the responsibility to require all Subcontractors to be enrolled in good standing in the Ohio Bureau of Workers' Compensation DFWP or comparable Bureau of Workers' Compensation approved program that meets the requirements specified in Ohio Revised Code Sections 153.03 to 153.031, prior to the Subcontractor providing labor at the Project site.

Each Bid shall contain the name of every person interested therein. If the Bidder is a corporation, partnership or sole proprietorship, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided and **sign the Bid Form**. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided and sign the Bid Form.

BIDDER'S NAME:

Authorized Signature: _____

Print Name: _____

Title: _____

Company Name: _____

Mailing Address: _____

Telephone Number: (_____) _____

Facsimile Number: (_____) _____

Where Incorporated: _____

Federal ID Number: _____

Contact Person for Contract processing:

Print Name: _____

Title: _____

E-mail: _____

OWNER-CONTRACTOR AGREEMENT

Owner:

**Board of Education of the Zanesville
City School District
956 Moxahala Avenue
Zanesville, Ohio 43701**

Contract and Project: Summer Paving Improvements and Repairs

Contractor:

Address:

Phone:

E-mail:

Date:

The Owner and the Contractor hereby enter into this Owner-Contractor Agreement ("Agreement") as of the date set forth above. The Owner and the Contractor agree as follows:

1. WORK.

1.1 The Contractor will provide all the labor, materials, equipment, tests and inspections, shall secure all necessary permits (including the building permit) and approvals, and shall perform all of the services as necessary and reasonably inferable for the timely and proper execution and completion of the work in connection with the Project (the "Work"), all in accordance with the terms and conditions of this Agreement. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Agreement.

1.2 The Contractor must at all times furnish sufficient skilled workers, materials, and equipment to perform the Work in strict conformance with the Contract Documents and to the satisfaction of the Owner, so as to complete the Project by the date for Substantial Completion.

1.3 The Contractor will assign a competent Project supervisor. At the Owner's request, the Contractor will replace the Project supervisor, provided that the request is reasonable. The Owner's Representative will not be responsible for the acts or omissions of the Contractor's supervisor or its assistants.

1.4 The Contractor shall be responsible for the disposal of debris and waste materials and leaving the Project site in a clean and sanitary condition. Contractor shall provide its own waste disposal receptacles and shall not use any dumpsters or receptacles of the Owner.

1.5 The Contractor shall provide for the safe storage and protection of materials and equipment at all times.

1.6 Upon final completion of the Work, the Contractor shall provide as-built drawings to the Owner depicting the Work as constructed.

1.7 The Contractor shall promptly review, approve in writing, and submit to the Owner shop drawings, product data, samples, and similar submittals as necessary for the Work. Shop drawings, product data, samples, and similar submittals are not Contract Documents. The Owner will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the concept expressed in the Contract Documents.

1.8 Underground Utility Facilities. The Contractor shall comply with ORC Sections 3781.25 through 3781.32. In addition, before starting excavation or trenching, the Contractor shall determine the location of any underground utilities and notify any public authority or utility having jurisdiction over the Project and secure any required approval. The Contractor shall alert immediately the occupants of any premises near the Work and the Owner as to any emergency that it may create or discover. The Contractor shall notify the operator of the underground facility and the Owner of any break or leak in the utility lines or any dent, gouge, groove, or other damage to such lines made or discovered in the course of excavation.

2. CONTRACT DOCUMENTS.

2.1 The "Contract Documents" consist of this Owner-Contractor Agreement, the project manual dated _____, 2025 (which includes the "Bidding Documents" defined in the Instructions to Bidders contained in the project manual) and modifications issued after the date of this Agreement (such as change directives and/or Change Orders), all of which are incorporated into this Agreement. In the event of a conflict among this Agreement and any of the other Contract Documents that are not resolved by a modification, the conflict shall be resolved by the Contractor adhering to the stricter requirement.

2.2 The Owner alone owns all Project-related documents, including those in electronic form, prepared by the Contractor and subcontractors, and every right, title, and interest therein from the moment of creation. The Contractor must execute and deliver and cause its employees and agents and all subcontractors to execute and deliver to the Owner any transfers, assignments, documents, or other instruments (if any) necessary to vest in the Owner complete right, title, interest in and ownership of the Contractor's documents. The Contractor may retain copies, including reproducible copies, of the Contractor's documents for information, reference, and performance of the Work. The submission or distribution of the Contractor's documents to meet official regulatory requirements or for similar purposes in connection with the Project is not a waiver of the Owner's reserved rights in the Contractor's documents. Any unauthorized use of the Contractor's documents shall be at the sole risk of the entity making the unauthorized use.

3. CONTRACT SUM.

3.1 **CONTRACT SUM.** The contract sum ("Contract Sum") to be paid by the Owner to the Contractor, as provided herein, for the satisfactory performance and completion of the Project and all of the duties, obligations and responsibilities of the Contractor under this Agreement and the other Contract Documents is _____ **Dollars (\$ _____)** **[Base Bid: \$ _____; Alternate: \$ _____]**. The Contract Sum includes all federal, state, county, municipal, and other taxes imposed by law, including but not limited to any sales, use, and personal property taxes payable by or levied against the Contractor on account of the Work or the materials incorporated into the Work. The Contractor is responsible to pay any such taxes. The Contract Sum also includes the cost of any permits required for the Work.

3.2 **ALLOWANCES.** The Owner shall select materials and equipment under allowances with reasonable promptness. Allowance amounts shall include the costs to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Contractor's costs for unloading and handling at the site, labor, installation, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowance. Unused allowance shall be credited to the Owner by Change Order.

4. REPRESENTATIVES.

4.1 Mike Young, Treasurer, is the "Owner's Representative" with respect to all matters involving the Project.

4.2 _____, is the "Contractor's Representative" with respect to all matters involving the Agreement and Project

4.3 Except as specifically stated to the contrary elsewhere in this Agreement, the parties will direct all communications to the other through their Representatives.

4.4 The Contractor at all times will provide the Owner's Representative access to the Work.

5. TIME FOR COMPLETION AND PROJECT COORDINATION.

5.1 PROJECT TIME SCHEDULE.

5.1.1 **SUBSTANTIAL COMPLETION.** Contractor shall commence the Work as of the date of this Agreement and shall attain substantial completion of the Work by not later than _____, 2025 unless the Owner and Contractor agree to a different substantial completion date ("Substantial Completion"). For purposes of this Agreement, "Substantial Completion" means that the Work is complete in accordance with the Contract Documents so that the Owner may utilize the Work for its intended purpose, subject to completion of minor punchlist items. "Punchlist items" are items to be completed or corrected prior to final payment that will not interfere with or hinder the Owner's use of the Project. The Contractor shall submit for the Owner's information a construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

5.1.2 **FINAL COMPLETION.** Contractor shall attain final completion of the Work not later than twenty-one (21) days after attainment of Substantial Completion. Final completion shall mean that the Work is fully and satisfactorily complete, including punchlist items, in accordance with the Contract Documents.

5.2 **TIME IS OF THE ESSENCE.** THE DATES IN THE PROJECT TIME SCHEDULE ARE OF THE ESSENCE OF THIS AGREEMENT. THE CONTRACTOR WILL PROSECUTE ITS WORK IN ACCORDANCE WITH THE PROJECT TIME SCHEDULE, INCLUDING ANY AMENDMENTS THERETO.

5.3 DELAYS AND ACCELERATIONS.

5.3.1 **NOTICE OF DELAYS.** The Contractor will give the Owner written notice of any delay affecting its prosecution of the Work within seven (7) days of the commencement of the delay. The failure to give the required notice constitutes an irrevocable waiver of the Contractor's right to seek an extension of time and/or additional compensation/damages for the delay. The Owner will determine whether a delay entitles the Contractor to an extension of time. If the Contractor

disputes the Owner's determination, then Contractor may submit a Claim pursuant to Article 10 herein. Any extensions of time will only be granted pursuant to the procedures for Change Orders set forth in this Agreement.

5.4 PROGRESS REPORTS. The Contractor shall provide weekly progress reports which shall include activities begun or finished during the preceding week, expected completion of activities in progress, activities to be started or finished in the upcoming two weeks, recommendations for adjusting the construction schedule to meet milestone completion, Substantial Completion and final completion dates, and other information requested by Owner.

5.5 LIQUIDATED DAMAGES. If the Contractor shall fail, neglect, and/or refuse to attain Substantial Completion of the Work by the date set forth in this Agreement or applicable milestone completion date, Contractor shall be subject to liquidated damages (not a penalty) at the rate of \$500.00 per calendar day. Such liquidated damages are hereby agreed to be a reasonable pre-estimate of damages the Owner will incur as a result of delayed completion of the Work and shall be in addition to any other remedies available to the Owner. The Owner may deduct liquidated damages from any unpaid amounts then or thereafter due Contractor. Any liquidated damages not so deducted shall be payable by the Contractor to the Owner upon demand. Liquidated damages are not intended to compensate the Owner for any damages the Owner incurs on account of any claims attributable to the Contractor that are brought by others, including separate contractors.

6. CORRECTIVE ACTION. If the Contractor is not cooperating or coordinating its Work properly with its subcontractors, not supplying sufficient skilled workers, not cleaning up the Project, not furnishing the necessary materials, equipment, or any temporary services or facilities to perform the Work in conformance with the Contract Documents, or the Contractor is not on schedule, or is not otherwise performing its obligations under the Contract Documents, the Contractor shall, not less than forty-eight (48) hours after notice, (1) commence such action as is necessary to correct the deficiencies, and (2) proceed to use its best efforts to correct such deficiencies within five (5) days of such notice. Such corrective action will be taken and continued uninterrupted without waiting to initiate any dispute under Article 10 of this Agreement or the resolution of any dispute initiated under such Article.

7. LIMITATION AND LIABILITY. The Owner's total liability under this Agreement is limited to the Contract Sum unless the parties agree in writing to additional amounts under a Change Order. Under no circumstances will the elected officials, officers, employees, board members, or agents of the Owner be personally liable for any obligations or claims arising out of or related to this Agreement.

8. PAYMENT.

8.1 PAYMENT.

8.1.1 APPLICATIONS FOR PAYMENT. Based upon itemized payment applications submitted to the Owner by the Contractor, the Owner shall make progress payments on account of the Contract Sum to the Contractor as set forth herein. Payment applications will be submitted on a monthly basis not later than the 5th day of a month and will reflect the amount of Work completed in the prior month. Each payment application shall be accompanied by conditional lien waivers and releases from all subcontractors and suppliers to be paid from the payment resulting from the payment application, unconditional lien waivers and releases from all subcontractors and suppliers for which Contractor was required to provide a conditional lien waiver in connection with a prior payment application, and such other data substantiating the Contractor's right to payment that the Owner may require, such as copies of requisitions. Each payment application shall be based on the most recent schedule of values submitted by the Contractor. The schedule of values shall allocate the entire Contract Sum to the various portions of the Work.

8.1.2 The Owner may withhold payment in whole or in part, and may nullify any previous payments and demand that the Contractor refund amounts previously paid, to protect the Owner from loss because of:

- (a) The Contractor's default or failure to perform any of its obligations under the Contract Documents, including but not limited to failure to provide sufficient skilled workers; Work, including equipment or materials, which is defective or otherwise does not conform to the Contract Documents; failure to conform to the Project time schedule; and failure to follow the directions of or instructions from the Owner;
- (b) The Work has not proceeded to the extent set forth in the application for payment;
- (c) Any representations made by the Contractor are untrue;
- (d) The failure of the Contractor to make payments to its subcontractors;
- (e) Damage to the Owner's property or the property of another person or laborer;
- (f) The determination by Owner that the Work cannot be completed for the unpaid balance of the Contract Sum;
- (g) Contractor's indemnity obligations; or
- (h) Liens filed or attested account claims received by a subcontractor.

8.1.3 The Owner will pay the Contractor within thirty (30) days after approval of the Contractor's payment application, provided that the payment application has been properly submitted on a timely basis and is accompanied by all of the required documentation.

8.2 RETAINAGE. Retainage applicable to the Contract by Ohio Revised Code Sections 153.12, .13, and .14 will be withheld as required by law. The Contractor agrees that the Owner may deposit funds into an interest-bearing savings account or otherwise track the retained funds with accrued interest in lieu of establishing a separate interest-bearing savings account for the deposit of the retained funds. Contractor further agrees that it will execute any documentation requested by Owner related to the manner in which retained funds are held or deposited for the Contractor.

8.3 FINAL PAYMENT. Following the final completion of the Work, Contractor shall submit a final payment application for the unpaid balance of the Contract Sum and retainage, which shall be due and payable within thirty (30) days following approval of the payment application. At the time of submission of its final payment application, Contractor shall provide the following: (1) operating manuals, warranties, as-built drawings and specifications showing Work as actually performed, variations from the original Contract Documents and the location of any concealed and/or buried items, utilities, mechanical or electrical systems and components, and other deliverables required by the Contract Documents, and (2) such other reasonable and customary documents as necessary for Owner to obtain the required title to the Project, including final lien waivers from the Contractor and its subcontractors and suppliers of any tier. In making final payment the Owner waives all claims except for: (i) improper workmanship or defective materials and failure of the Work to comply with the Contract Documents; (ii) terms of any special warranties required by the Contract Documents; (iii) Contractor indemnity obligations; and (iv) liens, security interests or encumbrances arising out of the Agreement and unsettled. In accepting final payment, the Contractor waives all claims except those previously made in writing and which remain unsettled.

9. CHANGE ORDERS/CHANGE DIRECTIVES.

9.1 Change Order. A Change Order is a written instrument signed by the Owner and the Contractor stating their agreement upon a change in the Work, the amount of the adjustment or the method for computing the amount of the adjustment of the Contract Sum, if any, and the extent of the adjustment in the Project time schedule, if any. Any Work that is beyond the scope of the Work specified for the Project or that modifies the Work specified for the Project must be approved through a written Change Order signed by the parties evidencing their agreement.

9.2 Change Directives. Notwithstanding any provision in Section 9.1 to the contrary, the Owner may, without invalidating the Agreement, issue to Contractor a construction change directive directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum, contract time, or both. Upon receipt of a construction change directive, the Contractor shall promptly proceed with the change in the Work involved. The Contractor shall submit promptly to the Owner a claim for adjustment to the Contract Sum and contract time for such revised Work in a manner consistent with requirements of the Agreement provided that Contractor's claim for overhead and profit shall not exceed ten percent. Contractor's cost breakdown for such claim shall be submitted to Owner in a form reasonably satisfactory to Owner.

10. CLAIMS.

10.1 A Claim is a demand or assertion by the Contractor seeking, as a matter of right, adjustment, or interpretation of the terms of the Contract Documents, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents, provided that the Owner's decision to adjust or withhold payment under Section 8.1.2 will not be considered a Claim. The responsibility to substantiate Claims rests with the Contractor. This Article 10 does not require the Owner to make a claim against the Contractor in order for the Owner to exercise its rights and remedies against the Contractor, including but not limited to the imposition of liquidated damages in accordance with the Contract Documents.

10.2 Claims must be made by written notice.

10.3 If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein must be given before proceeding to execute the Work.

10.4 If the Contractor wishes to make a Claim for additional time, the Contractor must include an estimate of cost and probable effect of delay on progress of the Work. In the event of continuing delay, only one Claim is necessary. If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled construction.

10.5 The Contractor must make all Claims in writing within seven (7) days after the occurrence of the event giving rise to the Claim. Failure to do so is an irrevocable waiver of the Claim.

10.6 The Contractor, within ten (10) days following a written request from Owner, will make available to the Owner or its representative any books, records, or other documents in its possession or to which it has access relating to any Claim and will require its subcontractors, regardless of tier, and material suppliers, to do likewise.

10.7 If a Claim has not been resolved within thirty (30) days after submission to the Owner, unless agreed otherwise in writing by the parties, the binding dispute resolution method shall be litigation in a court of competent jurisdiction.

10.8 Notwithstanding the foregoing, and subject to other provisions of the Agreement, the Contractor will only be entitled to an extension of the contract time on account of delay in the commencement or progress of Work caused by acts of nature or the public enemy, acts of the government not arising from the Contractor's failure to comply with applicable law, fires, floods, weather, labor disputes and any other type of force majeure event beyond the Contractor's control.

11. DEFAULT OF THE CONTRACTOR.

11.1 **EVENTS OF DEFAULT.** Each of the following constitutes an event of default of the Contractor:

11.1.1 (A) The Contractor's failure to perform any of its obligations under the Contract Documents and to proceed to commence to correct such failure within forty-eight (48) hours after written notice thereof from the Owner or such lesser time as is provided in the Contract Documents; (B) The Contractor's failure thereafter to use its best efforts to correct such failure; and (C) Except when an extension of time is granted in writing by the Owner, to correct such failure within five (5) days after receipt of written notice thereof; and/or

11.1.2 The Contractor's failure to pay its obligations as they become due or the Contractor's insolvency.

11.2 **OWNER'S REMEDIES.** Upon the occurrence of an event of default, the Owner will have the following remedies, which are cumulative:

11.2.1 Order the Contractor to stop the Work, which the Contractor will do immediately;

11.2.2 To perform through others all or any part of the Work remaining to be done and to deduct the cost thereof from the unpaid balance of the Contract Sum or, if the unpaid balance of the Contract Sum is inadequate, to demand reimbursement of amounts previously paid to the Contractor;

11.2.3 To terminate this Agreement and take possession of, for the purpose of completing the Work or any part of it, all materials, equipment, scaffolds, tools, appliances, and other items belonging to or possessed by the Contractor, all of which the Contractor hereby transfers and assigns to the Owner for such purpose, and to employ any person or persons to complete the Work, including the Contractor's employees, and the Contractor will not be entitled to receive any further payment until the Work is completed;

11.2.4 All other remedies which the Owner may have at law or in equity or otherwise under the Contract Documents.

11.3 **TERMINATION OF AGREEMENT.** The termination of this Agreement is without prejudice to the Owner's rights and remedies, including without limitation the Owner's right to be indemnified by the Contractor.

11.4 **PAYMENTS DUE CONTRACTOR.** If the unpaid balance of the Contract Sum exceeds the cost of finishing the Project, including any costs, expenses or damages incurred by the Owner as a result of the event of default, including attorneys' and consultants' fees and the administrative expense of the Owner's staff, Contractor shall be paid for Work satisfactorily performed. If such costs exceed the unpaid balance, the Contractor will pay the difference to the Owner. The obligations under this Section 11.4 will survive the termination of this Agreement.

12. TERMINATION OR SUSPENSION FOR THE CONVENIENCE OF THE OWNER.

12.1 **TERMINATION FOR THE CONVENIENCE OF THE OWNER.**

12.1.1 The Owner may, in its discretion and without cause, by written notice to the Contractor terminate this Agreement for the Owner's convenience at any time.

12.1.2 Upon receipt of a written notice from the Owner terminating this Agreement without cause and for the Owner's convenience, the Contractor will (i) immediately cease performing the Work, unless otherwise directed by the Owner, in which case the Contractor will take the action directed by the Owner, (ii) take all reasonable and necessary action to protect and preserve the Work, and (iii) unless otherwise directed by the Owner, terminate all agreements with subcontractors and suppliers.

12.1.3 If this Agreement is terminated without cause and for the Owner's convenience, the Owner will pay the Contractor (i) for Work performed under this Agreement up to the date the notice of termination is received by the Contractor at the rates for Work performed under this Agreement, including overhead and profit for the Work performed up to the date of termination, (ii) for Work performed at the direction of the Owner on and after the date on which the

notice of termination is received by the Contractor, as determined by the procedures applicable to Change Orders, and (iii) for Work necessary to protect and preserve the Work, as determined by the procedures applicable to Change Orders. Contractor shall not be entitled to overhead and profit on the Work that is terminated.

12.1.4 The termination of this Agreement will be without prejudice to any rights or remedies that exist at the time of termination.

12.2 SUSPENSION FOR THE CONVENIENCE OF THE OWNER.

12.2.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine. The Contract Sum and contract time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption. No adjustment shall be made to the extent that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible.

13. INSURANCE AND INDEMNIFICATION.

13.1 The Contractor shall, without interruption, maintain all forms of insurance required by law as well as insurance set forth in this Section 13.1 for the duration of this Agreement and for no less than five (5) years after the earlier of the termination of the Agreement or final completion of all Work. All such insurance shall be carried in companies licensed to conduct business in the State of Ohio and rated by "Best" Rating Service of A – VIII or better. The Contractor shall not cancel or allow to expire a policy of insurance without first securing a replacement policy so as to ensure the continuation of coverage. The Contractor's consultants and subcontractors shall similarly maintain such coverage as required by this Section 13.1:

13.1.1 Workers' Compensation Insurance covering the statutory requirements of the State of Ohio.

13.1.2 Employers' Liability with policy limits not less than one million dollars (\$1,000,000) each accident, one million dollars (\$1,000,000) each employee, and one million dollars (\$1,000,000) policy limit.

13.1.3 Commercial general liability coverage for bodily injury and property damage, including limited contractual liability coverage, in not less than the following amounts: (i) General Aggregate Limit: \$2,000,000; (ii) Each Occurrence Limit: \$2,000,000.

13.1.4 Comprehensive Automobile Liability Insurance, including bodily injury, accidental death and property damage with a combined single limit of not less than One Million Dollars (\$1,000,000) each occurrence.

13.1.5 Excess and/or umbrella liability insurance in excess of the Commercial General Liability Insurance shall be obtained and maintained by the Contractor in the amount of Five Million Dollars (\$5,000,000) per occurrence and in the aggregate annually.

13.2 Promptly following execution of this Agreement, the Contractor shall provide the Owner with certificates of insurance evidencing the required coverages and amounts, including without limitation any certificates of renewal of insurance. Such Certificates shall provide Owner with written notice of cancellation in accordance with the cancellation provisions applicable to each policy. Owner shall be named as an additional insured on the Commercial General Liability, Comprehensive Automobile Liability and Excess Umbrella policies, and Contractor's policies shall be considered as primary to and without right of contribution from any insurance maintained by Owner.

13.3 The Contractor bears the entire risk of loss with respect to tools, equipment, and materials. The Contractor will be responsible for providing property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made.

13.4 The Contractor will indemnify, defend and hold harmless the Owner and the Owner's consultants, agents, and employees from and against all claims, damages, losses, and expenses, including but not limited to attorneys' and consultants' fees, arising out of or related to the performance of the Work, including but not limited to the failure of the Contractor to perform its obligations under the Contract Documents, any claims for bodily injury, sickness, disease, or death or to injury to any person, including an employee of the Contractor, a subcontractor, anyone directly or indirectly employed by them, destruction of or loss of use of real or personal property, claims for additional storage and handling charges, liens, claims related to the alleged failure of the Contractor to perform in accordance with the Contract

Documents, and/or claims related to the removal, handling, or use of any hazardous materials. The Owner may set off amounts equal to any sums for which it is entitled to be indemnified from the amounts otherwise due the Contractor under the Contract Documents.

13.5 Contractor, on behalf of itself and all of its subcontractors, hereby waives all rights of action and subrogation against Owner and the Additional Indemnitees and their officers, agents, and employees.

13.6 In claims against any person or entity indemnified under this Agreement by an employee of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligations under this Agreement will not be limited by a limitation on amount or type of damages, compensation, or benefits payable for the Contractor or subcontractor under workers' compensation acts, disability benefits acts, or other employee benefits acts. The Contractor expressly waives any protection or immunity with respect to Workers' Compensation claims related to indemnification given under this Agreement.

13.7 The Contractor shall pay all deductibles, or self-insured retentions, or both contained in the Contractor's policies of insurance required or provided in connection with the Project. The Contractor shall pay a proportionate share of the deductibles, or self-insured retentions, or both contained in any insurance policy the Owner purchases for the Project. The Contractor's proportionate share will derive from the percentage of the associated claim or loss attributable to the alleged or actual negligence of the Contractor or a subcontractor. The Owner does not represent that required coverage or limits are adequate to protect the Contractor.

14. WARRANTIES AND CORRECTION OF WORK.

14.1 Warranties. In addition to any other warranties, guarantees, or obligations set forth in the Contract Documents or applicable as a matter of law and not in limitation of the terms of the Contract Documents, the Contractor warrants that:

(a) Title to all Work covered by a payment application will pass to the Owner no later than the time of payment and that upon submittal of a payment application all Work for which certificates for payment have been previously issued and payments received from the Owner shall be free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work;

(b) Materials and equipment furnished will be of good quality and new unless the Contract Documents require or permit otherwise; and

(c) The Work will be performed in a good and workmanlike manner, will conform to the requirements of the Contract Documents, and will be free from defects.

14.2 Correction of Work. The Contractor agrees to correct all construction performed under this Agreement which proves to be defective in workmanship, materials or not in accordance with the Contract Documents for a period of one year from the date of Substantial Completion or for such longer periods of time as may be set forth with respect to specific warranties required by the Contract Documents. The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work. The obligations of the Contractor under this Section 14.2 are in addition to and not in limitation of any other warranty or obligation of the Contractor under this Agreement.

14.3 Warranties for Material and Equipment. All warranties for material and equipment, and all other special warranties required by the Contract Documents, shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence upon Substantial Completion.

14.4 If a portion of the Work is covered contrary to the Owner's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Owner, be uncovered for the Owner's examination and be replaced at the Contractor's expense without change in the Contract Time. If a portion of the Work has been covered that the Owner has not specifically requested to examine prior to its being covered, the Owner may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

15. CONCEALED OR UNKNOWN CONDITIONS. If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract

Documents, the Contractor shall promptly provide notice to the Owner before conditions are disturbed and in no event later than seven (7) days after first observance of the conditions. The Owner will promptly investigate such conditions and, if the Owner determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or contract time, or both. If the Owner determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Agreement is justified, the Owner shall promptly notify the Contractor, stating the reasons. If Contractor disputes the Owner's determination, the Contractor may submit a Claim as provided in Article 10, and the time limit for initiating a Claim begins to run on the date the Owner issues its determination.

16. SUBCONTRACTORS. Contractor shall be responsible to Owner for acts and omissions of Contractor's employees, subcontractors, sub-subcontractors (regardless of tier), suppliers, consultants and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, Contractor, subcontractors, sub-subcontractors (regardless of tier), suppliers, consultants and their agents and employees. The Owner shall be named as a third-party beneficiary under any subcontractor agreement, and the Contractor shall require its subcontractors to name the Owner as a third-party beneficiary under the subcontract agreements. The Contractor hereby assigns, transfers, and conveys to Owner all of Contractor's right, title and interest in and to any subcontract agreement for the Work, which assignment, transfer and/or conveyance shall become enforceable only upon a termination of this Agreement due to the Contractor's default, and only as to those agreements that Owner accepts such assignment, transfer and/or conveyance of by providing written notification to the Contractor. Any agreements assigned to, and accepted by Owner in accordance herewith may, in turn, be assigned by Owner in its sole discretion, without recourse to any person or entity, in which event such assignee shall assume Owner's rights and obligations under the subcontract agreement (as the case may be).

17. TERMINATION BY CONTRACTOR. The Contractor may terminate this Agreement upon written notice for any of the following reasons: (i) the Owner's failure to pay the Contractor in accordance with this Agreement which has not been cured by Owner within fourteen (14) days of notice from the Contractor of such nonpayment; and (ii) if the Owner otherwise materially breaches this Agreement, and such material breach has not been cured by Owner within thirty (30) days of notice from Contractor of such material breach. Upon termination by the Contractor in accordance with this Article, the Contractor shall be entitled to recover from the Owner payment for all Work executed as of the termination date, but not overhead or profit for unperformed Work.

18. GENERAL.

18.1 MODIFICATION. No modification or waiver of any of the terms of this Agreement or of any other Contract Documents will be effective against a party unless set forth in writing and signed by or on behalf of a party. Under no circumstances will forbearance, including the failure or repeated failure to insist upon compliance with the terms of the Contract Documents, constitute the waiver or modification of any such terms. The parties acknowledge that no person has authority to modify this Agreement or the other Contract Documents or to waive any of its or their terms, except as expressly provided in this Section or as provided in a modification.

18.2 ASSIGNMENT. The Contractor may not assign this Agreement without the written consent of the Owner, which the Owner may withhold in its sole discretion.

18.3 THIRD PARTIES. Nothing contained in this Agreement creates a contractual relationship with or a cause of action in favor of a third party against the Owner.

18.4 LAW AND JURISDICTION. All questions regarding the validity, intention, or meaning of this Agreement or any modifications of it relating to the rights and obligations of the parties will be construed and resolved under the laws of the State of Ohio. The Common Pleas Court for the county in which the Project is located shall have exclusive jurisdiction over any suit which may be brought to enforce any provision of this Agreement or any remedy with respect hereto, except when the U.S. District Court located within the county is determined to have exclusive jurisdiction. The parties waive their right to remove any action filed in a state or local court to federal court.

18.5 STATUTE OF LIMITATIONS. Regardless of any provision to the contrary, the statute of limitations with respect to any defective or non-conforming Work that is not discovered by the Owner will not commence until the discovery of such defective or non-conforming Work by the Owner.

18.6 NOTICES. Notices, requests, or demands by either party must be in writing, unless otherwise expressly authorized, and must be personally served, given by expedited messenger service, given by certified mail (return receipt requested, postage prepaid), or given by e-mail transmission sent to the e-mail address of a party's designated representative (except that a notice of default and Claims given by e-mail must also be given to a party's designated representative in

writing via expedited messenger service or certified mail). Any party may change its address by giving notice hereunder. All notices, requests, and demands will be deemed received upon receipt in the case of personal delivery or delivery by expedited messenger service, including leaving the notice at the address provided herein during normal business hours; upon the expiration of forty-eight (48) hours from the time of deposit in the United States mail; or, in the case of a notice given by e-mail transmission, the e-mail notice shall be deemed received when the message enters the recipient's inbox, except that if the message enters the recipient's inbox after 5:00 pm, then it shall be deemed received the next business day.

18.7 CONSTRUCTION. The parties acknowledge that each party has reviewed this Agreement and the other Contract Documents and has voluntarily entered into this Agreement. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of this Agreement, the other Contract Documents, or any amendments or exhibits to it or them.

18.8 PARTIAL INVALIDITY. If any term or provision of this Agreement is found to be illegal, unenforceable, or in violation of any laws, statutes, ordinances, or regulations of any public authority having jurisdiction, then, notwithstanding such term or provision, this Agreement will remain in full force and effect, and such term will be deemed stricken; provided this Agreement will be interpreted, when possible, so as to reflect the intentions of the parties as indicated by any such stricken term or provision.

18.9 COMPLIANCE WITH LAWS AND REGULATIONS. The Contractor, at its expense, will comply with all applicable federal, state, and local laws, rules, and regulations applicable to the Work.

18.10 PROJECT SAFETY. The Contractor will be responsible for safety at the Project site and will follow all applicable safety and health regulations during the progress of the Project and will monitor all of its employees and its subcontractors for compliance with such safety and health regulations. The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Work, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards. The Owner assumes no responsibility for the development, review, or implementation of the any Project safety plan or for Project safety and has no authority to direct the means and methods of the Contractor. The Owner does not accept any responsibility or liability for the safety of the Contractor's employees or for enforcing the Contractor's safety program.

18.11 EQUAL OPPORTUNITY. The Contractor will not, and it will ensure that its subcontractors, regardless of tier, do not discriminate against any employee or applicant for employment because of age, race, color, national origin, sex, gender, gender identity or expression, transgenderism or transsexualism, sexual orientation, citizenship, ancestry, military or veteran status, marital status, family status, pregnancy, genetic characteristics, disability or medical condition. Such action includes but is not limited to the following: employment, upgrading, demotion, transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination. The Contractor will ensure that each of its subcontractors, regardless of tier, will state in all solicitations or advertisements for employees placed by them or on their behalf that all qualified applicants will receive consideration for employment without regard to age, race, color, national origin, sex, gender, gender identity or expression, transgenderism or transsexualism, sexual orientation, citizenship, ancestry, military or veteran status, marital status, family status, pregnancy, genetic characteristics, disability or medical condition.

18.12 ENTIRE AGREEMENT. This Agreement and the other Contract Documents constitute the entire agreement among the parties with respect to their subject matter and will supersede all prior and contemporaneous, oral or written, agreements, negotiations, communications, representations, and understandings with respect to such subject matter, and no person is justified in relying on such agreements, negotiations, communications, representations, or understandings.

18.13 WORK CONTINUANCE AND PAYMENT. Unless otherwise agreed in writing, Contractor shall continue the Work and maintain the approved schedules during any dispute mitigation or resolution proceedings. If Contractor continues to perform, Owner shall continue to make payments in accordance with the Agreement.

18.14 CRIMINAL BACKGROUND CHECKS. Contractor shall perform or cause to be performed an Ohio Bureau of Criminal Investigation and Identification and Federal Bureau of Investigation criminal background check of any person, whether an employee of Contractor or of any subcontractor, that will perform Work or services or otherwise be present at the Project site and within the proximity of students. Prior to the performance of any services by such employees, the criminal background check shall be performed and completed at Contractor's sole cost and expense. No person shall be employed on site by Contractor or by any subcontractor who has been found guilty of any of the criminal offenses enumerated in Ohio Revised Code Section 3319.39 or any equivalent provisions under Federal law or the laws of any of the other states. Contractor shall remove (and shall cause its subcontractor to remove) any person from the Project site found (during the criminal background check or otherwise) to have violated any of the offenses listed in Section 3319.39 of the Ohio Revised Code or equivalent provisions thereof under Federal law or the laws of any of the other states. The

foregoing shall not (i) be cause for any claim against the Owner for any reason, including without limitation, interference or delay, and (ii) excuse Contractor or any subcontractor from meeting the construction schedule.

18.15 EXECUTION OF AGREEMENT. Each party agrees that this Agreement may be electronically signed, and that any electronic signatures appearing on this Agreement are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility. This Agreement may also be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument, and any of the parties hereto may execute this Agreement by signing any such counterpart, and signed counterparts of this Agreement may be exchanged through electronic means.

18.16 COMPUTING TIME. When the Contract Documents refer to a period of time by a number of days, it excludes the first day and includes the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted and the period shall end on the next day which is not a Saturday, Sunday, or legal holiday. The term "day" as used in the Contract Documents shall mean a calendar day unless otherwise noted.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their properly authorized representatives as of the date first set forth above.

Owner

Contractor

By: _____
(signature)

By: _____
(signature)

(printed name and title)

(printed name and title)

CERTIFICATE
(Section 5705.41, R.C.)

IT IS HEREBY CERTIFIED that moneys required to meet the obligations of the Board of Education under the above Agreement have been lawfully appropriated for such purposes and are in the treasury of the School District or are in the process of collection to an appropriate fund, free from any previous encumbrance. This Certificate is given in compliance with Section 5705.41 of the Ohio Revised Code.

By: _____
Treasurer

Dated: _____, 2025

CONTRACTOR'S PERSONAL PROPERTY TAX AFFIDAVIT
(O.R.C. § 5719.042)

State of Ohio

County of _____, ss:

_____ ("Affiant"), being first duly sworn, deposes and says that
(Name)

Affiant is the _____ of _____
(Title) (Name and Address of Contractor)

_____ (the "Contractor") and

as the Contractor's duly authorized representative, states that effective this ____ day of _____, 20____,
the Contractor:

- () is charged with delinquent personal property taxes on the general list of personal property as set forth below:

<u>County</u>	<u>Amount</u> (include total amount penalties and interest thereon)
_____ County	\$ _____
_____ County	\$ _____
_____ County	\$ _____

- () is not charged with delinquent personal property taxes on the general list of personal property in any Ohio county.

(Affiant)

Sworn to or affirmed and subscribed before me by the above-named Affiant on this ____ day of _____, 20____.

Signature of Notary Public – State of Ohio

My commission expires: _____
(date)

BID GUARANTY AND CONTRACT BOND

(As prescribed by Section 153.571, ORC)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____

_____ as Principal at

(Address) and _____

as Surety, are hereby held and firmly bound unto the _____

_____ as Oblige in the penal sum of the dollar amount of the bid
submitted by the Principal to the Oblige on (date) _____, 20__ to undertake

the Project known as:

The penal sum, referred to herein, shall be the dollar amount of the Principal's bid to the Oblige, incorporating any additive or deductive alternate bids made by the Principal on the date referred to above to the Oblige, which are accepted by the Oblige. In no case shall the penal sum exceed the amount of \$_____. (If the penal sum is left blank, the penal sum will be the full amount of the Principal's bid, including alternate bids. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including add alternate bids, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a bid on the above-referenced to Project.

NOW, THEREFORE, if the Oblige accepts the bid of the Principal, and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications and bills of

material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent (10%) of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the Work covered by the bid; or resubmits the Project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent (10%) of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising and the printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect, if the Obligee accepts the bid of the Principal, and the Principal, within ten (10) days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such contract; and indemnify the Obligee against all damage suffered by failure to perform such contract according to the provisions thereof and in accordance with the plans, details, specifications and bills of material therefor; and shall pay all lawful claims of subcontractors, materialmen and laborers for labor performed and materials furnished in the carrying forward, performing or completing of said contract; we, agreeing and assenting to, that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said contract or in or to the plans and specifications, therefore, shall in any wise affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications. The said Surety further stipulates that it is authorized to execute bonds in the State of Ohio, and that the liability incurred is within the limits of Section 3929.02, ORC.

SIGNED this _____ day of _____, 20__.

PRINCIPAL:

By: _____

Title: _____

SURETY:

Address: _____

Phone: (____) _____

By: _____
Attorney-in-Fact

SURETY AGENT:

Address: _____

Phone: (____) _____

Division 00

Procurement Requirements

**SECTION 01 11 00
SUMMARY OF WORK**

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: 1429-1 Zanesville Middle School Asphalt Improvements
- B. Owner's Name: Zanesville City Schools.
- C. Architect's Name: Zanesville City Schools.
- D. The Project consists of Milling existing asphalt lot and drive lane, installing new asphalt overlay with scratch coat and 3" and full depth patches, striping replace concrete CB surrounds, adjust CB tops to .1" below new asphalt and installation of 4" perforated drain pipe.
- E. Alternates
 - 1. Mill 1.5" inch of asphalt off High Track and install T1 PG64-22 asphalt surface course to provide a 1% slope to inside of track.
 - 2. Build new basketball court with 2 basketball hoops/poles, painted court striping and 10' tall fencing.
 - 3. Remove and replace concrete side to match existing. Adjust utility caps/covers to meet new concrete elevations
- F. The project is a signature project for the Owner and construction of the highest quality is vitally important in this respect, each contractor assumes a position of trust confidence in the performance of its duties to the Owner and shall perform its work on the project with the highest degree of competence, diligence, cooperation and workmanship.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price.

1.03 OWNER OCCUPANCY

- A. Owner intends to occupy the Project upon Substantial Completion.
- B. Schedule the Work to accommodate Owner occupancy of 8/12/25.

1.04 WORK SEQUENCE

- A. The owner intends to award contracts soon after the receipt of bids.
- B. Coordinate construction schedule and operations with Owner.

1.05 CONTRACT NO. A - GENERAL CONSTRUCTION

- A. Division 01 - General Requirements:
 - 1. Specification sections listed above.
 - 2. Section 01 70 00: Basic project engineering and layout.
 - 3. Section 01 70 00: Final cleaning.
 - Provide all materials, manpower, supervision, equipment, small tools, incidentals required to complete the project
 - B. **THIS IS A TAX EXEMPT PROJECT.**
- 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. Procedures for preparation and submittal of application for final payment.

1.02 RELATED REQUIREMENTS

- A. Section 01 21 00 - Allowances: Payment procedures relating to allowances.

1.03 SCHEDULE OF VALUES

- A. Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Owner for approval.
- C. Forms filled out by hand will not be accepted.
- D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- E. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Including
 - 1. Bonds
 - 2. Insurances
 - 3. Permits
 - 4. Allowances
 - 5. Mobilization
 - 6. Project Closeout (punch lists, attic stock, project record drawings, training, final cleaning).
- F. Each line item number shall list the material and labor cost.
- G. Include within each line item, a direct proportional amount of Contractor's overhead and profit.
- H. Revise schedule 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. Form: AIA G702 Application and Certificate for Payment and AIA G703 - Continuation Sheet including continuation sheets when required.
 - 1. AIA G702 shall be an original and the most recent version of the form issued by the American Institute of Architects.
 - 2. AIA G703 - Continuation Sheet: Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. Present required information on electronic media printout or in typewritten form.
- E. Execute certification by signature of authorized officer.
- F. 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.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.

- H. Submit one electronic and three hard-copies of each Application for Payment.
- I. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 30 00.
 - 2. Partial release of liens from major subcontractors and vendors.
 - 3. Affidavits attesting to off-site stored products.

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 will issue instructions directly to Contractor.
- C. Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions on AIA Form G710 or written form.
- D. For other required changes, Architect 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.
- E. For changes for which advance pricing is desired, Architect 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 15 days.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
 - 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- G. Formula for Changes in the Contract Sum
 - 1. Definitions
 - a. Labor - All field labor shall be priced at the current base rate, excluding fringe benefits. The payroll is based on straight time only and is to include number of hours as rate of pay for each classification of worker.
 - b. Fringes - All established payroll taxes, assessment of fringe benefits labor. This may include, but is not limited to, FICA, Federal and State Unemployment, Health and Welfare, Pension Funds, Worker's Compensation and Apprentice Funds.
 - c. Equipment Rentals - All charges for certain non-owned heavy or specialized equipment at up to 100 percent of the documented rental cost. No rental charges will be allowed for hand tools, minor equipment, simple scaffold, etc.
 - d. Owned Equipment - All charges for certain owned, heavy or specialized equipment at up to 100 percent of the cost listed by the Associated Equipment Dealers Blue Book. No recovery will be allowed for hand tools, minor equipment, simple scaffold etc.
 - e. Trucking - A reasonable delivery charge or per mile trucking charges for delivery of require materials or equipment. Charges for use of a pickup truck will not be allowed.
 - f. Materials
 - 1) All materials purchased by the contractor and incorporated into the changed Work, showing costs, quantities, or Unit Prices of all items. Reimbursement of

- material cost shall only be allowed in the amount the Contractor's actual cost, including any and all discounts, rebates or related credits.
- 2) One third (33 percent) of the cost of reusable materials for each use, such as formwork lumber, shoring or temporary enclosures.
 - g. Overhead - Includes, but not limited to, telephone, telephone charges, facsimile, telegrams, postage, photos, photocopying, hand tools, simple scaffold, tool breakage, tool repair, tool replacement, tool blades, tool bits, home office estimating and expediting, home office clerical and accounting support, home office labor, legal services, supervision, travel and parking expenses.
 - h. Subcontractor - The reasonable cost for all labor and material provided by a Subcontractor whose pricing is included and complies with these pricing guidelines.
2. The cost of Change Orders shall be:
 - a. For each change over \$ 500.00, the contractor shall furnish a detailed, written proposal itemized according to these pricing guidelines. Any subcontractor or material supplier pricing shall be itemized according to these pricing guidelines.
 - b. For extra work completed by the contractor with his own forces: The sum of Labor, Fringes, Equipment Rentals, Owned Equipment, Trucking and Material plus 15 percent of the sum for overhead and profit.
 - c. For extra work completed by Subcontractor of the Contractor: The Subcontractor cost plus 10 percent of the Subcontractor cost for overhead and profit.
 3. Miscellaneous:
 - a. The following items are allowable at the cost of the Work with no overhead and profit:
 - 1) The cost of extending the Bond and the cost of extending liability, property damage, builder's risk or specialty coverage insurance
 - 2) Fees for permits, licenses, inspection, test, etc.
 - b. Cost which will not be reimbursed for Change Order Work include the following:
 - 1) Employee Profit Sharing Plans - regardless of how defined or described, the Contractor will pay these charges from Contractor profit.
 - 2) Voluntary Employee - examples are United Way and U.S. Bonds, etc.
- H. Execution of Change Orders: Architect 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. Closeout submittals in Section 01 7800 including but not limited to:
 - a. Wavier of Liens
 - b. Record Drawings
 - c. Operation and Maintenance Data
 - d. Warranties and Bonds
 - e. Certifications indicating no asbestos and lead solder in potable water systems have been incorporated into the work.
 - f. Sign in sheet for Demonstrations and Instructions

SECTION 01 23 00

- g. Signed receipt for Maintenance Materials (attic stock)
- h. Complete items of work determined by Owner's final inspection (completed punch list)

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 23 00

ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of Alternates.
- B. Procedures for pricing Alternates.
- C. Documentation of changes to Contract Sum and Contract Time.

1.02 RELATED REQUIREMENTS

- A. Bid Form

1.03 GENERAL

- A. Required alternates are worded briefly. Refer to Specification Sections and Drawings for additional requirements. Claims for additional compensation will not be granted because of omissions or discrepancies due to the brevity.
- B. Bidders shall indicate the addition or deduction amount from the base bid for each alternate requested in the space provided on the bid form.
- C. The cost indicated on the bid form shall include material and labor as may be necessary for the identified alternate.

1.04 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.05 SCHEDULE OF ALTERNATES

- A. Alternate No. 01: Mill 1.5" of existing track asphalt and remove off site, Install Type 1 PG64-22 asphalt surface course to provide a 1% slope from outside edge of track to top of the outside edge of curb at field perimeter. Include scratch coat and cost to survey track and determine correct elevations.
- B. Alternate No. 02: Build new asphalt Basketball Court 60'X52'
 - 1. Existing base material is adequate for new asphalt.
 - 2. Excavate and backfill to level the site. Install additional base material to level out space and provide a 1% slope in the court to drain water.
 - 3. Install 3" of asphalt consisting of 1.5" T2 intermediate asphalt course, tack coat @.07gal/syd and 1.5" of Type 1 PG64-22 asphalt surface course.
 - 4. Include 10' tall perimeter fencing to match existing style tight to edge of asphalt, 2 basketball hoops with backboards and poles on concrete footers
 - 5. Furnish and install painted striping for court layout (see layout drawing)
- C. Alternate 3: remove and Replace 3 areas of Concrete sidewalk. Depth of Concrete to match existing. Include prepping subbase to provide adequate subbase for new concrete

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. Number of copies of submittals.
- G. Submittal procedures.

1.02 RELATED REQUIREMENTS

- A. Section 01 33 23 - Contractor Submittal Form
- B. Section 01 70 00 - Execution and Closeout Requirements: Additional coordination requirements.
- C. 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.

1.04 PROJECT COORDINATOR

- A. Project Coordinator: General Contractor.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for site access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals to Architect through the Project Coordinator:
 - 1. Requests for Information.
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Manufacturer's instructions and field reports.
 - 5. Applications for payment and change order requests.
 - 6. Progress schedules.
 - 7. Coordination drawings.
 - 8. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 9. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. Owner will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
 - 4. All Major Subcontractors.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties to Contract.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
 - 8. Scheduling activities of Special Inspector required by the Authority having Jurisdiction.
- D. Record minutes and distribute electronic copies within two days after meeting to participants, with an electronic copy to Architect, Owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

- A. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- B. Attendance Required:
 - 1. Contractor
 - 2. Owner
 - 3. Architect
 - 4. Contractor's superintendent
 - 5. Major subcontractors
- 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 off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Scheduling activities of Special Inspector required by the Authority having Jurisdiction
 - 14. Other business relating to work.
- D. Project Coordinator to record minutes and distribute electronic copies within 5 days after meeting to participants, with an electronic copy to Architect, Owner, participants, and those

affected by decisions made.

3.03 PRE-INSTALLATION MEETINGS (CONFERENCE)

- A. A pre-installation meeting will be schedule at Project Site before construction activity that requires coordination with other construction and as indicated in the Contract Documents.
- B. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting.
- C. Review conditions of installation, preparation and installation procedures and coordination of related work including:
 - 1. Review of scope of work
 - 2. Review of approved submittals
 - 3. Manufacturers installation recommendations
 - 4. Deliveries
 - 5. Possible conflicts
 - 6. Compatibility problems
 - 7. Time schedules
 - 8. Environmental considerations
 - 9. Warranty requirements
 - 10. Acceptability of substrates
 - 11. Inspections and testing requirements
 - 12. Mockup Review
- D. Do not proceed with installation if the conference cannot be successfully concluded. Resolve impediments to performance of the work and reconvene the conference at the earliest feasible date

3.04 CONSTRUCTION PROGRESS SCHEDULE

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations.
- B. Submit updated schedule with each Application for Payment.

3.05 SUBMITTAL SCHEDULE

- A. Submit to Architect for review a schedule for submittals in tabular format.
 - 1. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
 - 2. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.

3.06 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Submittals will be marked as follows: Contractor to take the following action for each respective marking.
 - 1. No Exceptions Taken:
 - a. Procurement/Fabrication may proceed.

- b. Copies to be distributed as scheduled.
- 2. Note Markings and Confirm
 - a. Procurement/Fabrication may proceed based on marks.
 - b. Confirm compliance with markings with a letter on company letter head or resubmitted shop drawings.
- 3. Note Markings, Revise and Resubmit:
 - a. Correct markings on submittal.
 - b. Corrected shop drawings shall be resubmitted before final procurement and fabrication.
 - c. Do not use drawings marked 'resubmit' to be use in conjunction with installation of work.
- 4. Rejected/Incomplete Submittal: Correct submittal and resubmit in its entirety. No Procurement/Fabrication shall start until shop drawings have been completely revised, resubmitted and marked No Exceptions Taken or Note Markings and Confirm.
 - a. Correct submittal and resubmit in its entirety.
 - b. No Procurement/Fabrication shall start until shop drawings have been completely revised, resubmitted and marked No Exceptions Taken or Note Markings and Confirm.
- D. Samples will be reviewed for aesthetic, color, or finish selection.
- E. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - Closeout Submittals.

3.07 SUBMITTALS FOR INFORMATION

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

3.08 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. Minimum 1 year warranty
 - 4. Warranties and Bonds.
 - 5. Certifications indicating no asbestos and lead solder in potable water systems have been incorporated into the work.
 - 6. Sign in sheet for Demonstrations and Instructions
 - 7. Signed receipt for Maintenance Materials (attic stock)
 - 8. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

3.09 NUMBER OF COPIES OF SUBMITTALS

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

3.10 SUBMITTAL PROCEDURES

- A. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
 - 2. Do not reproduce the Contract Documents to create shop drawings.
 - 3. Generic, non-project specific information submitted as shop drawings do not meet the requirements for shop drawings.
- B. Transmit each submittal with a copy of approved submittal form.
 - 1. See Section 01 33 23 Contractor Submittal Form
 - 2. Electronic copy for use in conjunction with this project is available upon request.
- C. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- D. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- E. 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.
- F. Electronic Copy Submittals
 - 1. This procedure is for submission only and is not considered a file management system.
 - 2. Electronic file to be an editable PDF file. Create PDFs at native size and right-side up; illegible files will be rejected.
 - 3. Submit electronic file via email or to Garmann/Miller & Associates Inc's FTP site in the appropriate project file.
 - a. Notify Garmann/Miller & Associates Inc of submission to FTP site via email to Garmann/Miller & Associates' Project Manager and Submittal Coordinator.
 - b. Architect will notify via email the Contractor's Project Manager and Submittal Coordinator when the Contractor submittal has been reviewed and placed on the FTP site.
 - c. Contractor to remove submittal from FTP site.
 - 4. Submit two (2) hard copies to Owner's business address at the same time as electronic submission.
 - a. Hard copies will not be returned to contractor
 - b. Some specification sections may require additional hard copies. Refer to each section for additional requirements.
 - 5. Contractor to make hard copy for the project site.
 - 6. Contractor to make hard copies for owner's operation and maintenance manuals
- G. Schedule submittals to expedite the Project, and coordinate submission of related items.
- H. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

- I. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- J. Provide space for Contractor and Architect review stamps.
- K. When revised for resubmission, identify all changes made since previous submission.
- L. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- M. Submittals not requested will not be recognized or processed.

3.11 ELECTRONIC FILES

- A. Architects' Electronic Digital Files: Electronic copies of CAD Drawings of the Contract Drawings will be provided by the Architect for Contractor's use in preparing submittals. The Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings through an electronic digital file agreement.
 - 1. Electronic Digital Agreement: Electronic Digital files will be distributed to Contractors upon completion of AIA Document C106 - 2013, Digital Data Licensing Agreement as modified by the Architect for this project.

END OF SECTION

| Submittal Stamp Area |

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**SECTION 01 43 00
QUALITY ASSURANCE**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. References and standards.
- D. Testing and inspection agencies and services.
- E. Control of installation.
- F. Mock-ups.
- G. Manufacturers' field services.
- H. Defect Assessment.

1.02 RELATED REQUIREMENTS

- A. Document 00 31 19 - Existing Condition Information: Soil investigation data.
- B. Section 01 30 00 - Administrative Requirements: Submittal procedures.
- C. Section 01 60 00 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCE STANDARDS

- A. IAS AC89 - Accreditation Criteria for Testing Laboratories 2021.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Design Data: Submit for Architect'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 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, provide interpretation of results.
- D. Masonry Inspection
 - 1. Provide masonry inspection of concrete or brick masonry walls as required to insure that masonry construction is in conformance with the Contract Documents.
 - 2. The masonry inspector shall prepare a written report or reports for each day of inspection. Masonry Inspection report.
 - a. Masonry Inspection report attached to this Section.
 - 3. The masonry inspector shall be present and observe all grouting operations in wall requiring inspection. The masonry inspector shall be present at the project site with in

sufficient time, in advance of grouting operations, to inspect the construction to insure its conformance to the Contract Documents and that grouting may proceed. Periodically the masonry inspector shall be present during the placement of masonry units and reinforcement.

4. No grouting shall be permitted unless the masonry inspector is present and has indicated that the masonry construction is properly prepared for grouting operation.
- E. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, 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.
- F. 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.
- G. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
 1. Submit report in duplicate within 30 days of observation to Architect for information.
- H. Erection Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.

1.05 QUALITY ASSURANCE

- A. Owner to obtain and pay for Testing Agencies on site:
 1. Prior to start of work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 3. Qualification Statement: Provide documentation showing testing laboratory is accredited under IAS AC89.

1.06 REFERENCES AND STANDARDS

- A. For products and 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. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- 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 Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.07 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.

- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Testing and Inspection Agency:
 - 1. Testing agency: Comply with requirements of ASTM E 329, ASTM E 543, ASTM C 1021, ASTM C 1077, ASTM C 1093, and ASTM D 3740.
 - 2. Laboratory: Authorized to operate in State in which Project is located.
 - 3. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
 - 4. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

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 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.

END OF SECTION

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**SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary telecommunications services.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Field offices.

1.02 TELECOMMUNICATIONS SERVICES

- A. Job Superintendent to be on site and available via cell phone when work is performed.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

1.04 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.05 SECURITY

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

1.06 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Coordinate allowed locations for construction parking with owner.

1.07 WASTE REMOVA

- 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 when containers are full.
- 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.

1.08 FIELD OFFICES

- A. Not required

1.09 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

END OF SECTION

**SECTION 01 51 00
TEMPORARY UTILITIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, water, and dehumidification.

1.02 RELATED REQUIREMENTS

- A. Section 01 50 00 - Temporary Facilities and Controls:
 - 1. Temporary telecommunications services for administrative purposes.
 - 2. Temporary sanitary facilities required by law.

1.03 TEMPORARY WATER SERVICE

- A. Cost of Water Used: By Owner.
- B. Connect to existing water source.
 - 1. Exercise measures to conserve water.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**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. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- G. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 30 00 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
- B. Section 01 43 00 - Quality Assurance: Testing and inspection procedures.
- C. Section 01 78 00 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.
- D. Section 01 79 00 - Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections
- E. Section 07 84 00 - Firestopping.
- F. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.

1.03 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
 - 3. Submit surveys and survey logs for the project record.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate contractor.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 QUALIFICATIONS

- A. For surveying work, employ a land surveyor registered in Ohio and acceptable to Architect. Submit evidence of surveyor's Errors and Omissions insurance coverage in the form of an

Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities,

1.06 PROJECT CONDITIONS

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- D. 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 barriers between construction areas and areas continuing to be occupied by Owner.
- E. 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.
- F. 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.

1.07 COORDINATION

- A. 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.
- B. Notify affected utility companies and comply with their requirements.
- C. 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.
- D. 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.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. 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.

1.08 PROHIBITED MATERIAL AND PRACTICES

- A. Contractors are advised that the following materials and practices are prohibited in this project. Each Prime Contractor will be held responsible for compliance by his personnel and the personnel of each of his subcontractors.
 - 1. Use of tobacco products on school property is strictly prohibited.

2. Use of marking pens of any type on surfaces to remain exposed to view in finished building.
3. Penetrations of roof membrane without prior coordination with Roofing Contractor.
4. Burning of any trash or rubbish is prohibited.
5. Use of cabinetry countertops or other equipment as a work surface, walking surface or any other purpose which could result in damage to countertops or equipment.
6. Suspension of systems (acoustical ceilings, piping, ductwork, conduits etc.) from joist bridging and deck. Each system shall be supported from the building structure (beams, joist, etc.).

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 60 00 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis fabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Cut, move, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate ducts and piping to prevent condensation in exposed areas.
- E. Prepare surfaces and remove surface finishes to provide for proper installation of new work and finishes.
- F. Clean substrate surfaces prior to applying next material or substance.
- G. Seal cracks or openings of substrate prior to applying next material or substance.

- H. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
- F. Utilize recognized engineering survey practices.
- G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, ground floor elevations.
- H. Periodically verify layouts by same means.
- I. Maintain a complete and accurate log of control and survey work as it progresses.

3.04 GENERAL INSTALLATION REQUIREMENTS

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

3.05 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- C. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.

1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. Provide temporary connections as required to maintain existing systems in service.
 - c. A minimum of 3 days notice must be given the CM for any planned utility outages.
See Section 02 41 00
 4. Verify that abandoned services serve only abandoned facilities.
 5. Remove abandoned pipe, ducts, conduits, and equipment , including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- D. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
- E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
- F. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- G. Refinish existing surfaces as indicated:
- H. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
- I. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.06 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 1. Complete the work.
 2. Fit products together to integrate with other work.
 3. Provide openings for penetration of mechanical, electrical, and other services.
 4. Match work that has been cut to adjacent work.
 5. Repair areas adjacent to cuts to required condition.
 6. Repair new work damaged by subsequent work.
 7. Remove samples of installed work for testing when requested.

- 8. Remove and replace defective and non-complying work.
- D. Each trade is responsible for cutting and patching for their work unless otherwise noted.
- E. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- F. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- G. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- H. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- I. Restore work with new products in accordance with requirements of Contract Documents.
- J. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- K. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
- L. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.
- M. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- N. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.

3.07 PROGRESS CLEANING BY EACH CONTRACTOR

- A. Contractors shall provide daily cleanup and removal of rubbish/refuse resulting from their operations including but not limited to bulky debris, packaging, containers, unused material.
- B. Remove pile of debris from the building daily. No pile of debris shall be left in the building overnight.
- C. At reasonable intervals during the progress of Work, not less than once a week, perform a cleaning of dirt, dust and debris. Broom clean floor and paved surfaces and raked clean other surfaces of ground.
- D. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste material on project site.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
- E. Roadway shall remain clear.

3.08 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. 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.
- G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.09 ADJUSTING

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

3.10 FINAL CLEANING

- A. Each Contractor shall perform his respective final clean up and shall leave the Work of the completed project in a clean neat condition.
- B. Execute final cleaning prior to final project assessment.
 - 1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
- C. Each Contractor shall perform shall perform his respective final clean up and shall leave the Work of the completed project in a clean neat condition including the following:
 - 1. Conduct an inspection of sight-exposed interior and exterior surfaces and work areas, to verify that the entire Work is left in broom clean condition.
 - 2. Tunnels and closed off spaces shall be cleaned of packing boxes, wood frame members and other waste materials used in the construction.
 - 3. The entire system of piping and equipment shall be cleaned internally. The Contractor installing those item shall open all direct pockets and strainers, completely blowing down as required and clean strainer screens of all accumulated debris
 - 4. Tanks, fixtures and pumps shall be drained and proved free of sludge and accumulated matter.
 - 5. Temporary labels, stickers etc., shall be removed from fixtures and equipment (Do not remove permanent nameplates, equipment model numbers, rating etc.)
 - 6. Use cleaning materials that are nonhazardous.
 - 7. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
 - 8. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
 - 9. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
 - 10. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- D. The General Contractor will do final cleaning which will consist of the following to a degree acceptable to the Architect.
 - 1. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign material from sight-exposed interior and exterior surfaces.
 - 2. Vacuum all carpeting. Clean and wax VCT floors including a minimum of three (3) coats of wax or the number of coats specified by the manufacturers which ever is greater. Wax to be approved by the Owner prior to waxing.
 - 3. Wash and shine glazing and mirrors.
 - 4. Polish glossy surfaces to a clear shine.
 - 5. Dust cabinets work and remove markings

6. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
7. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
8. Clean site; sweep paved areas, rake clean landscaped surfaces.
9. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.11 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 1. Provide copies to Architect.
- B. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
- C. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- D. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- E. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- F. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
- G. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.12 MAINTENANCE

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

END OF SECTION

**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.
- D. Certifications.
- E. Receipts.

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 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 will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
 - 5. Submit two electronic sets of final documents in final form within 10 days after final inspection. Electronic format shall be PDF's on CD's or USB flash drives.
- C. Warranties and Bonds:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.
- D. Certifications:
 - 1. Submit copies of the certifications listed in this section:
 - a. Certification stating that no flux or solder used for drinking water piping .
 - b. Certification stating that asbestos containing material was not incorporated into the Work.
- E. Receipts:
 - 1. Submit copies of the receipt signed by owner for completed training sessions.
 - a. See individual specifications sections for training required.
 - 2. Submit copies of the receipt signed by owner for maintenance material (attic stock).

- a. See individual specifications sections for maintenance material (attic stock) required.

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. Addenda.
 - 3. Change Orders and other modifications to the Contract.
- 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. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Field changes of dimension and detail.
 - 3. 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.
- 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. Additional information as specified in individual product specification sections.
- D. 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 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. 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.

- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 3 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. 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 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.
- K. One (1) electronic copy of the Operation and Maintenance Manuals shall be placed on a CD, Thumb Drive, or other form of Mass Storage Device, for the Owners use. Files must be in a

PDF format or format approved by the Owner.

3.06 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. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
- F. 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.
- G. 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.
- H. 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

PART 1 GENERAL

1.01 SUMMARY

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Division 02

Existing Conditions

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**SECTION 02 41 00
SITE DEMOLITION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition of buildings, foundations, utility structures, paving, utilities, and associated items.
 - 2. Filling voids created as a result of removals or demolition.
- B. Related Requirements:
 - 1. Section 311000 – Site Clearing
 - 2. Section 312000 – Earthwork
 - 3. Section 312500 – Erosion & Sediment Controls

1.2 REGULATORY REQUIREMENTS

- A. Conform to applicable State and local codes for demolition of structures, safety of adjacent structures, dust control, runoff control, and pollution prevention.
- B. Obtain required permits and licenses from appropriate authorities. Pay associated fees including disposal charges.
- C. Notify affected utility companies before starting work and comply with their requirements.
- D. Do not close or obstruct public or private roadways, sidewalks, or fire hydrants without appropriate permits or written authorization.
- E. If hazardous, contaminated materials, or other environmental related conditions are discovered, stop work immediately and notify the Architect for action to be taken. Do not resume work until specifically authorized by the Architect.
- F. Test soils around buried tanks for contamination. Coordinate notification for mobilization to site and required observation of tank removal with Architect.

1.3 SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of capped utilities and subsurface obstructions that will remain after demolition. Submit record as part of closeout submittals.

1.4 PROJECT CONDITIONS

- A. Structures to be demolished will be discontinued in use and vacated prior to start of work.
- B. Owner assumes no responsibility for condition of structures to be demolished.

- C. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as reasonably practical. Variations within structures may occur by Owner's removal and salvage operations prior to start of demolition work.
- D. Unless otherwise indicated in Contract Documents or specified by the Owner, items of salvageable value to Contractor shall be removed from site and structures. Storage or sale of removed items on site will not be permitted and shall not interfere with other work specified.
- E. Explosives shall not be brought to site or used.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

- A. Fill material shall be as specified in Section 31 20 00 Earthwork.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Provide, erect, and maintain erosion control devices, temporary barriers, and security devices at locations indicated on Construction Drawings.
- B. Protect existing landscaping materials, appurtenances, and structures, which are not to be demolished. Repair damage to existing items to remain caused by demolition operations. Repair shall meet or exceed existing conditions and shall be coordinated with the Architect.
- C. Prevent movement or settlement of adjacent structures. Provide bracing and shoring as necessary.
- D. Mark location of utilities. Protect and maintain in safe and operable condition utilities that are to remain. Prevent interruption of existing utility service to occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities as acceptable to governing authorities and Owner.
- E. Notify adjacent property owners of work that may affect their property, potential noise, utility outages, or other disruptions. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon, or limit access to their property. Coordinate notice with Owner.
- F. Existing Utilities: Locate, identify, disconnect, and seal or cap off at source indicated utilities serving buildings and utility structures to be demolished.
 - 1. Contractor shall arrange to shut off indicated utilities with respective utility companies.
 - 2. If removal or relocation of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be

- demolished and that maintain continuity of service to other buildings and structures.
 - 3. Remove utilities to source per the requirements of the authorities having jurisdiction.
 - 4. Where utilities are removed, also remove all protective encasements and conduit.
- G. Existing Utilities: Do not start demolition work until utility disconnecting, sealing and removal to source have been completed and verified in writing.

3.2 GENERAL DEMOLITION REQUIREMENTS

- A. Conduct demolition to minimize interference with adjacent buildings or pavements to remain.
- B. Cease operations immediately if adjacent buildings appear to be in danger. Notify Architect. Do not resume operations until approved by Architect.
- C. Conduct operations with minimum of interference to public or private access. Maintain ingress and egress at all times.
- D. Use water to minimize dust. Provide hoses and water connections for this purpose.
- E. Comply with governing regulations pertaining to environmental protection.
- F. Clean adjacent buildings and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing prior to start of work.
- G. Keep public streets free of mud, dirt, dust and other debris.

3.3 DEMOLITION

- A. Demolish site improvements designated to be removed as shown on the drawings. Site improvements shall include but not be limited to buildings, retaining walls, foundations, pavements, curbs and gutters, drainage structures, utilities, signage or landscaping.
- B. Disconnect and cap or remove utilities to be abandoned as shown on the drawings.
- C. Fill or remove underground tanks, piping, and appurtenances as specified.
- D. Demolish buildings completely and remove from site using methods as required to complete work within limitations of governing regulations. Small buildings may be removed intact when acceptable to Owner and authorities having jurisdiction.
- E. Locate demolition equipment and remove materials to prevent excessive loading to supporting walls, floors, or framing.
- F. Demolish and remove any concrete and masonry slabs or foundation visible on the surface or identified on the drawing to be removed.

3.4 FILLING BASEMENTS AND VOIDS

- A. Unless otherwise directed, completely fill below grade areas and voids resulting from demolition or removal of buildings, foundations, utility structures, underground fuel storage tanks, wells, cisterns, etc., using materials and methods specified in section 31 20 00 Earthwork.
- B. Areas to be filled shall be free of standing water, frost, frozen or unsuitable material, trash, and debris prior to fill placement.
- C. Place fill materials in accordance with Section 31 20 00 Earthwork unless subsequent excavation for new work is required.
- D. Grade surface to match adjacent grades and to provide adequate and correctly routed flow of surface drainage after fill placement and compaction.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove from site debris, rubbish, and other materials resulting from demolition operations. Leave areas of work in clean condition.
- B. No burning of any material, debris, or trash on-site or off-site will be allowed except when allowed by appropriate governing authority and Owner. If allowed as stated above, burning shall be performed in manner prescribed by governing authority. Attend burning materials until fires have burned out and have been completely extinguished.
- C. Transport materials removed from demolished items with appropriate vehicles and dispose off-site to areas that are approved for disposal by governing authorities and appropriate property owners.

END SECTION

Division 03

Concrete

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SECTION 031000 - CONCRETE FORMING AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Form-facing material for cast-in-place concrete.
2. Shoring, bracing, and anchoring.

B. Related Requirements:

1. Section 33000 "Cast-in-Place Concrete" for embedded items and surface finishes related to formwork.
2. Section 321313 "Concrete Paving" for formwork related to concrete pavement and walks.
3. Section 321316 "Decorative Concrete Paving" for formwork related to decorative concrete pavement and walks.

1.2 DEFINITIONS

- A. Form-Facing Material: Temporary structure or mold for the support of concrete while the concrete is setting and gaining sufficient strength to be self-supporting.
- B. Formwork: The total system of support of freshly placed concrete, including the mold or sheathing that contacts the concrete, as well as supporting members, hardware, and necessary bracing.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review the following:
 - a. Special inspection and testing and inspecting agency procedures for field quality control.
 - b. Construction, movement, contraction, and isolation joints
 - c. Forms and form-removal limitations.
 - d. Shoring and reshoring procedures.
 - e. Anchor rod and anchorage device installation tolerances.

1.4 ACTION SUBMITTALS

A. Product Data: For each of the following:

1. Exposed surface form-facing material.
2. Concealed surface form-facing material.
3. Forms for cylindrical columns.
4. Void forms.
5. Form ties.
6. Waterstops.
7. Form-release agent.
8. See Section 01... for requirements.

B. Shop Drawings: Prepared by, and signed and sealed by, a qualified professional engineer responsible for their preparation, detailing fabrication, assembly, and support of forms.

1. See General Notes in Construction Documents for additional requirements.
2. Indicate proposed schedule and sequence of stripping of forms, shoring removal, and reshoring installation and removal.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Waterstops: Store waterstops under cover to protect from moisture, sunlight, dirt, oil, and other contaminants.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Concrete Formwork: Design, engineer, erect, shore, brace, and maintain formwork, shores, and reshores in accordance with ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads, so that resulting concrete conforms to the required shapes, lines, and dimensions.

1. Design wood panel forms in accordance with APA's "Concrete Forming Design/Construction Guide."
2. Design formwork to limit deflection of form-facing material to 1/240 of center-to-center spacing of supports.
 - a. For architectural concrete specified in Section 033300 "Architectural Concrete," limit deflection of form-facing material, studs, and walers to 0.0025 times their respective clear spans (L/400).

2.2 FORM-FACING MATERIALS

A. As-Cast Surface Form-Facing Material:

1. Provide continuous, true, and smooth concrete surfaces.
2. Furnish in largest practicable sizes to minimize number of joints.
3. Acceptable Materials: As required to comply with Surface Finish designations specified in Section 033000 "Cast-In-Place Concrete, and as follows:

- a. Plywood, metal, or other approved panel materials.
- B. Concealed Surface Form-Facing Material: Lumber, plywood, metal, plastic, or another approved material.
 - 1. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Forms for Cylindrical Columns, Pedestals, and Supports: Metal, glass-fiber-reinforced plastic, paper, or fiber tubes that produce surfaces not exceeding specified formwork surface class.
 - 1. Provide forms with sufficient wall thickness to resist plastic concrete loads without detrimental deformation.
- D. Void Forms: Biodegradable paper surface, treated for moisture resistance, structurally sufficient to support the weight of plastic concrete and other superimposed loads.

2.3 WATERSTOPS

- A. Flexible Rubber Waterstops: U.S. Army Corps of Engineers CRD-C 513, with factory-installed metal eyelets, for embedding in concrete to prevent passage of fluids through joints, with factory fabricated corners, intersections, and directional changes.
 - 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following] [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. Williams Products, Inc.
 - b. .
 - 2. Profile: Flat dumbbell with center bulb.
 - 3. Dimensions: 6 inches by 3/8 inch thick; non tapered.
- B. Chemically Resistant Flexible Waterstops: Thermoplastic elastomer rubber waterstops with factory-installed metal eyelets, for embedding in concrete to prevent passage of fluids through joints; resistant to oils, solvents, and chemicals, with factory fabricate corners, intersections, and directional changes.
 - 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following] [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. JP Specialties, Inc.
 - b. Sika Corporation.
 - c. .
 - 2. Profile: Flat dumbbell with center bulb Flat dumbbell without center bulb Ribbed with center bulb Ribbed without center bulb Insert profile.
 - 3. Dimensions: 6 inches by 3/8 inch thick; non tapered.

- C. Flexible PVC Waterstops: U.S. Army Corps of Engineers CRD-C 572, with factory-installed metal eyelets, for embedding in concrete to prevent passage of fluids through joints, with factory fabricate corners, intersections, and directional changes.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BoMetals, Inc.
 - b. Sika Corporation.
 - c. Vinylex Waterstop & Accessories.
 - d. .
 2. Profile: Flat dumbbell with center bulb Flat dumbbell without center bulb Ribbed with center bulb Ribbed without center bulb Insert profile.
 3. Dimensions: 6 inches by 3/8 inch thick; non tapered.
- D. Self-Expanding Butyl Strip Waterstops: Manufactured rectangular or trapezoidal strip, butyl rubber with sodium bentonite or other hydrophilic polymers, for adhesive bonding to concrete, 3/4 by 1 inch.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Carlisle Coatings & Waterproofing Inc.
 - b. CETCO, a Minerals Technologies company.
 - c. Concrete Sealants Inc.
 - d. Henry Company.
 - e. JP Specialties, Inc.
 - f. Sika Corporation.
 - g. .
- E. Self-Expanding Rubber Strip Waterstops: Manufactured rectangular or trapezoidal strip, bentonite-free hydrophilic polymer-modified chloroprene rubber, for adhesive bonding to concrete, 3/8 by 3/4 inch.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Adeka Corporation.
 - b. CETCO, a Minerals Technologies company.
 - c. GCP Applied Technologies Inc.
 - d. Kryton International Inc.
 - e. Sika Corporation.
 - f. .

2.4 RELATED MATERIALS

- A. Reglets: Fabricate reglets of not less than 0.022-inch- thick, galvanized-steel sheet. Temporarily fill or cover face opening of reglet to prevent intrusion of concrete or debris.

- B. Dovetail Anchor Slots: Hot-dip galvanized-steel sheet, not less than 0.034 inch thick, with bent tab anchors. Temporarily fill or cover face opening of slots to prevent intrusion of concrete or debris.
- C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4-inch, minimum.
- D. Rustication Strips: Wood, metal, PVC, or rubber strips, kerfed for ease of form removal.
- E. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
 - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
 - 2. Form release agent for form liners shall be acceptable to form liner manufacturers.
- F. Form Ties: Factory-fabricated, removable or snap-off, glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
 - 1. Furnish units that leave no corrodible metal closer than 1 inch to the plane of exposed concrete surface.
 - 2. Furnish ties that, when removed, leave holes no larger than 1 inch in diameter in concrete surface.
 - 3. Furnish ties with integral water-barrier plates to walls indicated to receive dampproofing or waterproofing.

PART 3 - EXECUTION

3.1 INSTALLATION OF FORMWORK

- A. Comply with ACI 301.
- B. Construct formwork, so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117 and to comply with the Surface Finish designations specified in Section 033000 "Cast-In-Place Concrete" for as-cast finishes .
- C. Limit concrete surface irregularities as follows:
 - 1. Surface Finish-1.0: ACI 117 Class D, 1 inch.
 - 2. Surface Finish-2.0: ACI 117 Class B, 1/4 inch.
 - 3. Surface Finish-3.0: ACI 117 Class A, 1/8 inch.
- D. Construct forms tight enough to prevent loss of concrete mortar.
 - 1. Minimize joints.
 - 2. Exposed Concrete: Symmetrically align joints in forms.

- E. Construct removable forms for easy removal without hammering or prying against concrete surfaces.
 - 1. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces.
 - 2. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 3. Install keyways, reglets, recesses, and other accessories, for easy removal.
- F. Do not use rust-stained, steel, form-facing material.
- G. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces.
 - 1. Provide and secure units to support screed strips
 - 2. Use strike-off templates or compacting-type screeds.
- H. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible.
 - 1. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar.
 - 2. Locate temporary openings in forms at inconspicuous locations.
- I. Chamfer exterior corners and edges of permanently exposed concrete, refer to architectural drawings for additional details.
- J. At construction joints, overlap forms onto previously placed concrete not less than 12 inches.
- K. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work.
 - 1. Determine sizes and locations from trades providing such items.
 - 2. Obtain written approval of Architect prior to forming openings not indicated on Drawings.
- L. Construction and Movement Joints:
 - 1. Construct joints true to line with faces perpendicular to surface plane of concrete.
 - 2. Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
 - 3. Place joints perpendicular to main reinforcement.
 - 4. Locate joints for beams, slabs, joists, and girders in the middle third of spans.
 - a. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
 - 5. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
 - 6. Space vertical joints in walls as indicated on Drawings.
 - a. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.

- M. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.
 - 1. Locate ports and openings in bottom of vertical forms, in inconspicuous location, to allow flushing water to drain.
 - 2. Close temporary ports and openings with tight-fitting panels, flush with inside face of form, and neatly fitted, so joints will not be apparent in exposed concrete surfaces.
- N. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- O. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- P. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 INSTALLATION OF EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete.
 - 1. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
 - 3. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls and other conditions.
 - 4. Install dovetail anchor slots in concrete structures, as indicated on Drawings.
 - 5. Clean embedded items immediately prior to concrete placement.

3.3 INSTALLATION OF WATERSTOPS

- A. Flexible Waterstops: Install in construction joints and at other joints indicated to form a continuous diaphragm.
 - 1. Install in longest lengths practicable.
 - 2. Locate waterstops in center of joint unless otherwise indicated on Drawings.
 - 3. Allow clearance between waterstop and reinforcing steel of not less than 2 times the largest concrete aggregate size specified in Section 033000 "Cast-In-Place Concrete."
 - 4. Secure waterstops in correct position at 12 inches on center.
 - 5. Field fabricate joints in accordance with manufacturer's instructions using heat welding.
 - a. Miter corners, intersections, and directional changes in waterstops.
 - b. Align center bulbs.
 - 6. Clean waterstops immediately prior to placement of concrete.
 - 7. Support and protect exposed waterstops during progress of the Work.

- B. Self-Expanding Strip Waterstops: Install in construction joints and at other locations indicated on Drawings, according to manufacturer's written instructions, by adhesive bonding, mechanically fastening, and firmly pressing into place.
 - 1. Install in longest lengths practicable.
 - 2. Locate waterstops in center of joint unless otherwise indicated on Drawings.
 - 3. Protect exposed waterstops during progress of the Work.

3.4 INSTALLATION OF INSULATING CONCRETE FORMS

- A. Comply with ACI 301 and manufacturer's instructions.
- B. Construct formwork, so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Install forms in running bond pattern.
 - 1. Align joints.
 - 2. Align furring strips.
- D. Construct forms tight to prevent loss of concrete mortar.
- E. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work.
 - 1. Determine sizes and locations from trades providing such items.
 - 2. Obtain written approval of Architect prior to forming openings not indicated on Drawings.
- F. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.
 - 1. Locate ports and openings in bottom of vertical forms, in inconspicuous location, to allow flushing water to drain.
 - 2. Close temporary ports and openings with tight fitting panels, flush with inside face of form, and neatly fitted, so joints will not be apparent in exposed concrete surfaces.
- G. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- H. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- I. Shore insulating concrete forms to ensure stability and to resist stressing imposed by construction loads.

3.5 REMOVING AND REUSING FORMS

- A. Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.
- B. Clean and repair surfaces of forms to be reused in the Work.
 - 1. Split, frayed, delaminated, or otherwise damaged form-facing material are unacceptable for exposed surfaces.
 - 2. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints.
 - 1. Align and secure joints to avoid offsets.
 - 2. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.6 SHORING AND RESHORING INSTALLATION

- A. Comply with ACI 318 and ACI 301 for design, installation, and removal of shoring and reshoring.
 - 1. Do not remove shoring or reshoring until measurement of slab tolerances is complete.
- B. In multistory construction, extend shoring or reshoring over a sufficient number of stories to distribute loads in such a manner that no floor or member will be excessively loaded or will induce tensile stress in concrete members without sufficient steel reinforcement.
- C. Plan sequence of removal of shores and reshore to avoid damage to concrete. Locate and provide adequate reshoring to support construction without excessive stress or deflection.

3.7 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Inspections:
 - 1. See Construction Documents for special inspection requirements.

END OF SECTION

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SECTION 032000 - CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel reinforcement bars.
2. Welded-wire reinforcement.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for reinforcing, hot weather fogging, calcium chloride, examination of reinforcing, vapor retarder protection, construction joints, concrete placement, position of reinforcing on chairs and repairs.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Each type of steel reinforcement.
2. Epoxy repair coating.
3. Zinc repair material.
4. Bar supports.
5. Mechanical splice couplers.
6. Structural thermal break insulated connection system.

B. Shop Drawings: Comply with ACI SP-066:

1. Include placing drawings that detail fabrication, bending, and placement.
2. Include bar sizes, lengths, materials, grades, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, location of splices, lengths of lap splices, details of mechanical splice couplers, details of welding splices, tie spacing, hoop spacing, and supports for concrete reinforcement.
3. For structural thermal break insulated connection system, indicate general configuration, insulation dimensions, tension bars, compression pads, shear bars, and dimensions.

C. Construction Joint Layout: Indicate proposed construction joints required to build the structure.

1. Location of construction joints is subject to approval of Architect.

1.3 INFORMATIONAL SUBMITTALS

A. Material Test Reports: For the following, from a qualified testing agency:

1. Steel Reinforcement:
 - a. For reinforcement to be welded, mill test analysis for chemical composition and carbon equivalent of the steel in accordance with ASTM A706/A706M.
2. Mechanical splice couplers.
- B. Field quality-control reports.

1.4 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel in accordance with AWS D1.4/D 1.4M.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.
 1. Store reinforcement to avoid contact with earth.

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A615/A615M, Grade 60, deformed.
- B. Low-Alloy Steel Reinforcing Bars: ASTM A706/A706M, deformed.
- C. Steel Bar Mats: ASTM A184/A184M, fabricated from ASTM A615/A615M, Grade 60, deformed bars, assembled with clips.
- D. Plain-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, plain, fabricated from as-drawn steel wire into flat sheets.
- E. Deformed-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, flat sheet.

2.2 REINFORCEMENT ACCESSORIES

- A. Joint Dowel Bars: ASTM A615/A615M, Grade 60, plain-steel bars, cut true to length with ends square and free of burrs.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place.

1. Manufacture bar supports from steel wire, plastic, or precast concrete in accordance with CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 - a. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire, all-plastic bar supports, or CRSI Class 2 stainless steel bar supports.
- C. Mechanical Splice Couplers: ACI 318 Type 1, same material of reinforcing bar being spliced; mechanical-lap type.
- D. Steel Tie Wire: ASTM A1064/A1064M, annealed steel, not less than 0.0508 inch in diameter.
 1. Finish: Plain Galvanized ASTM A884/A884M, Class A, Type 1, epoxy coated, with less than 2 percent damaged coating in each 12-inch wire length.

2.3 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protection of In-Place Conditions:
 1. Do not cut or puncture vapor retarder.
 2. Repair damage and reseal vapor retarder before placing concrete.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

3.2 INSTALLATION OF STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for placing and supporting reinforcement.
- B. Accurately position, support, and secure reinforcement against displacement.
 1. Locate and support reinforcement with bar supports to maintain minimum concrete cover.
 2. Do not tack weld crossing reinforcing bars.
- C. Preserve clearance between bars of not less than 1 inch, not less than one bar diameter, or not less than 1-1/3 times size of large aggregate, whichever is greater.
- D. Provide concrete coverage in accordance with ACI 318.
- E. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

- F. Splices: Lap splices as indicated on Drawings.
 - 1. Bars indicated to be continuous, and all vertical bars to be lapped not less than 36 bar diameters at splices, or 24 inches, whichever is greater.
 - 2. Stagger splices in accordance with ACI 318.
 - 3. Mechanical Splice Couplers: Install in accordance with manufacturer's instructions.
- G. Install welded-wire reinforcement in longest practicable lengths.
 - 1. Support welded-wire reinforcement in accordance with CRSI "Manual of Standard Practice."
 - a. For reinforcement less than W4.0 or D4.0, continuous support spacing to not exceed 12 inches.
 - 2. Lap edges and ends of adjoining sheets at least one wire spacing plus 2 inches for plain wire and 8 inches for deformed wire.
 - 3. Offset laps of adjoining sheet widths to prevent continuous laps in either direction.
 - 4. Lace overlaps with wire.

3.3 JOINTS

- A. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
 - 1. Place joints perpendicular to main reinforcement.
 - 2. Continue reinforcement across construction joints unless otherwise indicated.
 - 3. Do not continue reinforcement through sides of strip placements of floors and slabs.
- B. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length, to prevent concrete bonding to one side of joint.

3.4 INSTALLATION TOLERANCES

- A. Comply with ACI 117.

3.5 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
 - 1. See Contract Documents for special inspections.

END OF SECTION

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.

B. Related Requirements:

1. Section 031000 "Concrete Forming and Accessories" for form-facing materials, form liners, insulating concrete forms, and waterstops.
2. Section 032000 "Concrete Reinforcing" for steel reinforcing bars and welded-wire reinforcement.

1.2 DEFINITIONS

- A. Cementitious Materials: Portland or Portland-Limestone cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.
- B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Require representatives of each entity directly concerned with cast-in-place concrete to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Ready-mix concrete manufacturer.
 - d. Concrete Subcontractor.
 - e. Special concrete finish Subcontractor.
2. Review the following:
 - a. Special inspection and testing and inspecting agency procedures for field quality control.
 - b. Construction joints, control joints, isolation joints, and joint-filler strips.
 - c. Semirigid joint fillers.
 - d. Vapor-retarder installation.

- e. Anchor rod and anchorage device installation tolerances.
- f. Cold and hot weather concreting procedures.
- g. Concrete finishes and finishing.
- h. Curing procedures.
- i. Forms and form-removal limitations.
- j. Methods for achieving specified floor and slab flatness and levelness.
- k. Floor and slab flatness and levelness measurements.
- l. Concrete repair procedures.
- m. Concrete protection.
- n. Initial curing and field curing of field test cylinders (ASTM C31/C31M.)
- o. Protection of field cured field test cylinders.

1.4 ACTION SUBMITTALS

A. Product Data: For each of the following.

- 1. Portland cement.
- 2. Portland-limestone cement.
- 3. Fly ash.
- 4. Slag cement.
- 5. Aggregates.
- 6. Admixtures:
 - a. Include limitations of use, including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.
- 7. Vapor retarders.
- 8. Floor and slab treatments.
- 9. Liquid floor treatments.
- 10. Curing materials.
- 11. Joint fillers.
- 12. Repair materials.

B. Design Mixtures: For each concrete mixture, include the following:

- 1. Mixture identification.
- 2. Minimum 28-day compressive strength.
- 3. Durability exposure class.
- 4. Maximum w/cm.
- 5. Calculated equilibrium unit weight, for lightweight concrete.
- 6. Slump limit.
- 7. Air content.
- 8. Nominal maximum aggregate size.
- 9. Indicate amounts of mixing water to be withheld for later addition at Project site if permitted.
- 10. Intended placement method.

11. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For the following:
 1. Installer: Include copies of applicable ACI certificates.
 2. Ready-mixed concrete manufacturer.
- B. Material Certificates: For each of the following, signed by manufacturers:
 1. Cementitious materials.
 2. Admixtures.
 3. Curing compounds.
 4. Floor and slab treatments.
 5. Bonding agents.
 6. Vapor retarders.
 7. Semirigid joint filler.
 8. Joint-filler strips.
 9. Repair materials.
- C. Material Test Reports: For the following, from a qualified testing agency:
 1. Portland cement.
 2. Portland-Limestone cement.
 3. Fly ash.
 4. Slag cement.
 5. Aggregates.
 6. Admixtures:
- D. Preconstruction Test Reports: For each mix design.
- E. Field quality-control reports.
- F. Minutes of preinstallation conference.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs Project personnel qualified as an ACI-certified Flatwork Technician and Finisher and a supervisor who is a certified ACI Flatwork Concrete Finisher/Technician or an ACI Concrete Flatwork Technician .
 1. Post-Installed Concrete Anchors Installers: ACI-certified Adhesive Anchor Installer.

- B. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.
 - 1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

1.7 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on each concrete mixture.
 - 1. Include the following information in each test report:
 - a. Admixture dosage rates.
 - b. Slump.
 - c. Air content.
 - d. Seven-day compressive strength.
 - e. 28-day compressive strength.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Comply with ASTM C94/C94M and ACI 301.

1.9 FIELD CONDITIONS

- A. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1 and as follows.
 - 1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 2. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 - 3. Do not use frozen materials or materials containing ice or snow.
 - 4. Do not place concrete in contact with surfaces less than 35 deg F, other than reinforcing steel.
 - 5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
 - 1. Maintain concrete temperature at time of discharge to not exceed 95 deg F.
 - 2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

A. Source Limitations:

1. Obtain all concrete mixtures from a single ready-mixed concrete manufacturer for entire Project.
2. Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant.
3. Obtain aggregate from single source.
4. Obtain each type of admixture from single source from single manufacturer.

B. Cementitious Materials:

1. Portland Cement: ASTM C150/C150M, Type I/II, gray.
2. Portland-Limestone Cement: ASTM C595, Type 1L.
3. Fly Ash: ASTM C618, Class C or F.
4. Slag Cement: ASTM C989/C989M, Grade 100 or 120.

C. Normal-Weight Aggregates: ASTM C33/C33M, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.

1. Maximum Coarse-Aggregate Size: 1-1/2 inches nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

D. Air-Entraining Admixture: ASTM C260/C260M.

E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride in steel-reinforced concrete.

1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
2. Retarding Admixture: ASTM C494/C494M, Type B.
3. Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
5. High-Range, Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.

F. Water and Water Used to Make Ice: ASTM C94/C94M, potable or

2.3 VAPOR RETARDERS

- A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A; not less than 10 mils thick. Include manufacturer's recommended adhesive or pressure-sensitive tape.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Reef Industries, Inc.
 - b. Stego Industries, LLC.
 - c. W.R. Meadows, Inc.
 - d. Insert manufacturer's name.

2.4 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Bon Tool Co.
 - b. Brickform; a division of Solomon Colors.
 - c. ChemMasters, Inc.
 - d. Euclid Chemical Company (The); an RPM company.
 - e. Kaufman Products, Inc.
 - f. Laticrete International, Inc.
 - g. Master Builders Solutions.
 - h. Metalcrete Industries.
 - i. Nox-Crete Products Group.
 - j. Sika Corporation.
 - k. SINAK Corporation.
 - l. SpecChem, LLC.
 - m. TK Products.
 - n. Vexcon Chemicals Inc.
 - o. W.R. Meadows, Inc.
 - p. .
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.
 - 1. Color:
 - a. Ambient Temperature Below 50 deg F: Black.
 - b. Ambient Temperature between 50 deg F and 85 deg F: Any color.
 - c. Ambient Temperature Above 85 deg F: White.

- D. Curing Paper: 8-feet- wide paper, consisting of two layers of fibered kraft paper laminated with double coating of asphalt.
- E. Water: Potable or complying with ASTM C1602/C1602M.
- F. Clear, Waterborne, Membrane-Forming, Dissipating Curing Compound: ASTM C309, Type 1, Class B.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Anti-Hydro International, Inc.
 - b. ChemMasters, Inc.
 - c. Dayton Superior.
 - d. Euclid Chemical Company (The); an RPM company.
 - e. Kaufman Products, Inc.
 - f. Lambert Corporation.
 - g. Laticrete International, Inc.
 - h. Nox-Crete Products Group.
 - i. SpecChem, LLC.
 - j. TK Products.
 - k. Vexcon Chemicals Inc.
 - l. W.R. Meadows, Inc.
 - m. .
- G. Clear, Waterborne, Membrane-Forming, Curing and Sealing Compound: ASTM C1315, Type 1, Class A.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. ChemMasters, Inc.
 - b. Concrete Sealers USA.
 - c. Dayton Superior.
 - d. Euclid Chemical Company (The); an RPM company.
 - e. Kaufman Products, Inc.
 - f. Lambert Corporation.
 - g. Laticrete International, Inc.
 - h. Metalcrete Industries.
 - i. Nox-Crete Products Group.
 - j. Right Pointe.
 - k. SpecChem, LLC.
 - l. TK Products.
 - m. Vexcon Chemicals Inc.
 - n. W.R. Meadows, Inc.
 - o. .

2.5 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiberor ASTM D1752, cork or self-expanding cork.
- B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 in accordance with ASTM D2240.
- C. Bonding Agent: ASTM C1059/C1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.
- D. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade and class to suit requirements, and as follows:
 - 1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- E. Floor Slab Protective Covering: 8-feet- wide cellulose fabric.

2.6 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C150/C150M portland cement or hydraulic or blended hydraulic cement, as defined in ASTM C219.
 - 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand, as recommended by underlayment manufacturer.
 - 4. Compressive Strength: Not less than 4100 psi at 28 days when tested in accordance with ASTM C109/C109M.
- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch and that can be filled in over a scarified surface to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C150/C150M portland cement or hydraulic or blended hydraulic cement, as defined in ASTM C219.
 - 2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
 - 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch or coarse sand as recommended by topping manufacturer.
 - 4. Compressive Strength: Not less than 5000 psi at 28 days when tested in accordance with ASTM C109/C109M.

2.7 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
 - 1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement or portland-limestone cement in concrete as follows:
 - 1. Fly Ash or Other Pozzolans: 25 percent by mass.
 - 2. Slag Cement: 50 percent by mass.
 - 3. Silica Fume: 10 percent by mass.
 - 4. Total of Fly Ash or Other Pozzolans, Slag Cement, and Silica Fume: 50 percent by mass, with fly ash or pozzolans not exceeding 25 percent by mass and silica fume not exceeding 10 percent by mass.
 - 5. Total of Fly Ash or Other Pozzolans and Silica Fume: 35 percent by mass with fly ash or pozzolans not exceeding 25 percent by mass and silica fume not exceeding 10 percent by mass.
- C. Admixtures: Use admixtures in accordance with manufacturer's written instructions.
- D. See General Notes for Concrete Mixture Information.

2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94/C94M, and furnish batch ticket information.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 - 1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
 - 2. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:
 - 1. Daily access to the Work.

2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project site during site curing period for test samples.
4. Security and protection for test samples and for testing and inspection equipment at Project site.

3.3 INSTALLATION OF EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
 1. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of ANSI/AISC 303.
 3. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.

3.4 INSTALLATION OF VAPOR RETARDER

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder in accordance with ASTM E1643 and manufacturer's written instructions.
 1. Install vapor retarder with longest dimension parallel with direction of concrete pour.
 2. Face laps away from exposed direction of concrete pour.
 3. Lap vapor retarder over footings and grade beams not less than 6 inches, sealing vapor retarder to concrete.
 4. Lap joints 6 inches and seal with manufacturer's recommended tape.
 5. Terminate vapor retarder at the top of floor slabs, grade beams, and pile caps, sealing entire perimeter to floor slabs, grade beams, foundation walls, or pile caps.
 6. Seal penetrations in accordance with vapor retarder manufacturer's instructions.
 7. Protect vapor retarder during placement of reinforcement and concrete.
 - a. Repair damaged areas by patching with vapor retarder material, overlapping damages area by 6 inches on all sides, and sealing to vapor retarder.

3.5 JOINTS

- A. Construct joints true to line, with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Coordinate with floor slab pattern and concrete placement sequence.
 1. Install so strength and appearance of concrete are not impaired, at locations indicated on Drawings or as approved by Architect.
 2. Place joints perpendicular to main reinforcement.

- a. Continue reinforcement across construction joints unless otherwise indicated.
 - b. Do not continue reinforcement through sides of strip placements of floors and slabs.
3. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
4. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated.
 1. Grooved Joints: Form control joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of control joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 2. Sawed Joints: Form control joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.
- D. Isolation Joints in Slabs-on-Ground: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated on Drawings.
 2. Terminate full-width joint-filler strips not less than 1/2 inch or more than 1 inch below finished concrete surface, where joint sealants, specified in Section 079200 "Joint Sealants," are indicated.
 3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.
- E. Doweled Joints:
 1. Install dowel bars and support assemblies at joints where indicated on Drawings.
 2. Lubricate or asphalt coat one-half of dowel bar length to prevent concrete bonding to one side of joint.
- F. Dowel Plates: Install dowel plates at joints where indicated on Drawings.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and vapor retarder is complete and that required inspections are completed.
 1. Immediately prior to concrete placement, inspect vapor retarder for damage and deficient installation, and repair defective areas.
 2. Provide continuous inspection of vapor retarder during concrete placement and make necessary repairs to damaged areas as Work progresses.

- B. Notify Architect and testing and inspection agencies 24 hours prior to commencement of concrete placement.
- C. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect in writing, but not to exceed the amount indicated on the concrete delivery ticket.
 - 1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- D. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301, but not to exceed the amount indicated on the concrete delivery ticket.
 - 1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- E. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.
 - 1. If a section cannot be placed continuously, provide construction joints as indicated.
 - 2. Deposit concrete to avoid segregation.
 - 3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
 - 4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.
 - a. Do not use vibrators to transport concrete inside forms.
 - b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
 - c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
 - d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- F. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 - 1. Do not place concrete floors and slabs in a checkerboard sequence.
 - 2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 - 3. Maintain reinforcement in position on chairs during concrete placement.
 - 4. Screed slab surfaces with a straightedge and strike off to correct elevations.
 - 5. Level concrete, cut high areas, and fill low areas.
 - 6. Slope surfaces uniformly to drains where required.
 - 7. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
 - 8. Do not further disturb slab surfaces before starting finishing operations.

3.7 FINISHING FORMED SURFACES

A. As-Cast Surface Finishes:

1. ACI 301 Surface Finish SF-1.0: As-cast concrete texture imparted by form-facing material .
 - a. Patch voids larger than 1-1/2 inches wide or 1/2 inch deep.
 - b. Remove projections larger than 1 inch.
 - c. Tie holes do not require patching.
 - d. Surface Tolerance: ACI 117 Class D.
 - e. Apply to concrete surfaces not exposed to public view and will not receive a coating or covering material applied directly to the concrete Insert locations.
2. ACI 301 Surface Finish SF-2.0: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams.
 - a. Patch voids larger than 3/4 inch wide or 1/2 inch deep.
 - b. Remove projections larger than 1/4 inch.
 - c. Patch tie holes.
 - d. Surface Tolerance: ACI 117 Class B.
 - e. Locations: Apply to concrete surfaces exposed to public view, or to be covered with a coating or covering material applied directly to concrete.

B. Related Unformed Surfaces:

1. At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a color and texture matching adjacent formed surfaces.
2. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.8 FINISHING FLOORS AND SLABS

A. Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Scratch Finish:

1. While still plastic, texture concrete surface that has been screeded and bull-floated or darbied.
2. Use stiff brushes, brooms, or rakes to produce a profile depth of 1/4 inch in one direction.
3. Apply scratch finish to surfaces [**to receive concrete floor toppings**] [**to receive mortar setting beds for bonded cementitious floor finishes**] <Insert locations>.

C. Float Finish :

1. When bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operation of specific float apparatus, consolidate concrete surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats.

2. Repeat float passes and restraighening until surface is left with a uniform, smooth, granular texture and complies with ACI 117 tolerances for conventional concrete.
3. Apply float finish to surfaces to receive trowel finish.

Trowel Finish :

1. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
2. Continue troweling passes and restraighen until surface is free of trowel marks and uniform in texture and appearance.
3. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
4. Do not add water to concrete surface.
5. Do not apply hard-troweled finish to concrete, which has a total air content greater than 3 percent.
6. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
7. Finish surfaces to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:

a. Slabs on Ground:

- 1) Specified overall values of flatness, F_F 25; and of levelness, F_L 20; with minimum local values of flatness, F_F 15; and of levelness, F_L 12.
- 2) Specified overall values of flatness, F_F 35; and of levelness, F_L 25; with minimum local values of flatness, F_F 21; and of levelness, F_L 15.
- 3) Specified overall values of flatness, F_F 45; and of levelness, F_L 35; with minimum local values of flatness, F_F 27; and of levelness, F_L 21.
- 4) Specified overall values of flatness, F_F 50; and of levelness, F_L 25; with minimum local values of flatness, F_F 30; and of levelness, F_L 15.

b. Suspended Slabs:

- 1) Specified overall values of flatness, F_F 25; with minimum local values of flatness, F_F 15.
- 2) Specified overall values of flatness, F_F 35; with minimum local values of flatness, F_F 21.
- 3) Specified overall values of flatness, FF 45; with minimum local values of flatness, FF 27.

E. Broom Finish : Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.

1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
2. Coordinate required final finish with Architect before application.

F. Slip-Resistive Finish: Before final floating, apply slip-resistive [aggregate] [aluminum granule] finish to concrete stair treads, platforms, ramps as indicated on Drawings

1. Apply in accordance with manufacturer's written instructions and as follows:
 - a. Uniformly spread Insert rate of dampened slip-resistive aggregate over surface in one or two applications.
 - b. Tamp aggregate flush with surface, but do not force below surface.
 - c. After broadcasting and tamping, apply float finish.
 - d. After curing, lightly work surface with a steel wire brush or an abrasive stone and water to expose slip-resistive aggregate.
- G. Dry-Shake Floor Hardener Finish: After initial floating, apply dry-shake floor hardener to surfaces in accordance with manufacturer's written instructions and as follows:
 1. Uniformly apply dry-shake floor hardener at a rate of 100 lb/100 sq. ft. unless greater amount is recommended by manufacturer.
 2. Uniformly distribute approximately two-thirds of dry-shake floor hardener over surface by hand or with mechanical spreader, and embed by power floating.
 3. Follow power floating with a second dry-shake floor hardener application, uniformly distributing remainder of material, and embed by power floating.
 4. After final floating, apply a trowel finish.
 5. Cure concrete with curing compound recommended by dry-shake floor hardener manufacturer and apply immediately after final finishing.

3.9 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS

- A. Filling In:
 1. Fill in holes and openings left in concrete structures after Work of other trades is in place unless otherwise indicated.
 2. Mix, place, and cure concrete, as specified, to blend with in-place construction.
 3. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations:
 1. Coordinate sizes and locations of concrete bases with actual equipment provided.
 2. Construct concrete bases 4 inches high unless otherwise indicated on Drawings, and extend base not less than 6 inches in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated on Drawings, or unless required for seismic anchor support.
 3. Minimum Compressive Strength: 4000 psi at 28 days.
 4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of concrete base.
 5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete substrate.
 6. Prior to pouring concrete, place and secure anchorage devices.

- a. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
- b. Cast anchor-bolt insert into bases.
- c. Install anchor bolts to elevations required for proper attachment to supported equipment.

3.10 CONCRETE CURING

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

- 1. Comply with ACI 301 and ACI 306.1 for cold weather protection during curing.
- 2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.
- 3. Maintain moisture loss no more than 0.2 lb/sq. ft. x h before and during finishing operations.

B. Curing Formed Surfaces: Comply with ACI 308.1 as follows:

- 1. Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces.
- 2. Cure concrete containing color pigments in accordance with color pigment manufacturer's instructions.
- 3. If forms remain during curing period, moist cure after loosening forms.
- 4. If removing forms before end of curing period, continue curing for remainder of curing period, as follows:
 - a. Continuous Fogging: Maintain standing water on concrete surface until final setting of concrete.
 - b. Continuous Sprinkling: Maintain concrete surface continuously wet.
 - c. Absorptive Cover: Pre-dampen absorptive material before application; apply additional water to absorptive material to maintain concrete surface continuously wet.
 - d. Water-Retention Sheeting Materials: Cover exposed concrete surfaces with sheeting material, taping, or lapping seams.
 - e. Membrane-Forming Curing Compound: Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
 - 1) Recoat areas subject to heavy rainfall within three hours after initial application.
 - 2) Maintain continuity of coating and repair damage during curing period.

C. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:

- 1. Begin curing immediately after finishing concrete.
- 2. Interior Concrete Floors:
 - a. Floors to Receive Floor Coverings Specified in Other Sections: Contractor has option of the following:

- 1) Absorptive Cover: As soon as concrete has sufficient set to permit application without marring concrete surface, install prewetted absorptive cover over entire area of floor.
 - a) Lap edges and ends of absorptive cover not less than 12 inches.
 - b) Maintain absorptive cover water saturated, and in place, for duration of curing period, but not less than seven days.
- 2) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.
 - a) Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
 - b) Cure for not less than seven days.
- 3) Ponding or Continuous Sprinkling of Water: Maintain concrete surfaces continuously wet for not less than seven days, utilizing one, or a combination of, the following:
 - a) Water.
 - b) Continuous water-fog spray.

b. Floors to Receive Curing and Sealing Compound:

- 1) Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller in accordance with manufacturer's written instructions.
- 2) Recoat areas subjected to heavy rainfall within three hours after initial application.
- 3) Repeat process 24 hours later, and apply a second coat. Maintain continuity of coating, and repair damage during curing period.

3.11 TOLERANCES

- A. Conform to ACI 117.

3.12 JOINT FILLING

- A. Prepare, clean, and install joint filler in accordance with manufacturer's written instructions.
1. Defer joint filling until concrete has aged at least one month(s).
 2. Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.
- C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints.

- D. Overfill joint, and trim joint filler flush with top of joint after hardening.

3.13 CONCRETE SURFACE REPAIRS

A. Defective Concrete:

1. Repair and patch defective areas when approved by Architect.
2. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.

1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension to solid concrete.
 - a. Limit cut depth to 3/4 inch.
 - b. Make edges of cuts perpendicular to concrete surface.
 - c. Clean, dampen with water, and brush-coat holes and voids with bonding agent.
 - d. Fill and compact with patching mortar before bonding agent has dried.
 - e. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement, so that, when dry, patching mortar matches surrounding color.
 - a. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching.
 - b. Compact mortar in place and strike off slightly higher than surrounding surface.
3. Repair defects on concealed formed surfaces that will affect concrete's durability and structural performance as determined by Architect.

D. Repairing Unformed Surfaces:

1. Test unformed surfaces, such as floors and slabs, for finish, and verify surface tolerances specified for each surface.
 - a. Correct low and high areas.
 - b. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
2. Repair finished surfaces containing surface defects, including spalls, popouts, honeycombs, rock pockets, crazing, and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
3. After concrete has cured at least 14 days, correct high areas by grinding.

4. Correct localized low areas during, or immediately after, completing surface-finishing operations by cutting out low areas and replacing with patching mortar.
 - a. Finish repaired areas to blend into adjacent concrete.
5. Correct other low areas scheduled to receive floor coverings with a repair underlayment.
 - a. Prepare, mix, and apply repair underlayment and primer in accordance with manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 - b. Feather edges to match adjacent floor elevations.
6. Correct other low areas scheduled to remain exposed with repair topping.
 - a. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations.
 - b. Prepare, mix, and apply repair topping and primer in accordance with manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
7. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete.
 - a. Remove defective areas with clean, square cuts, and expose steel reinforcement with at least a 3/4-inch clearance all around.
 - b. Dampen concrete surfaces in contact with patching concrete and apply bonding agent.
 - c. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate.
 - d. Place, compact, and finish to blend with adjacent finished concrete.
 - e. Cure in same manner as adjacent concrete.
8. Repair random cracks and single holes 1 inch or less in diameter with patching mortar.
 - a. Groove top of cracks and cut out holes to sound concrete, and clean off dust, dirt, and loose particles.
 - b. Dampen cleaned concrete surfaces and apply bonding agent.
 - c. Place patching mortar before bonding agent has dried.
 - d. Compact patching mortar and finish to match adjacent concrete.
 - e. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.14 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.
- B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
 - 1. Testing agency to be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31/C31M.
 - 2. Testing agency to immediately report to Architect, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
 - 3. Testing agency to report results of tests and inspections, in writing, to Owner, Architect, Contractor, and concrete manufacturer within 48 hours of inspections and tests.
 - a. Test reports to include reporting requirements of ASTM C31/C31M, ASTM C39/C39M, and ACI 301, including the following as applicable to each test and inspection:
 - 1) Project name.
 - 2) Name of testing agency.
 - 3) Names and certification numbers of field and laboratory technicians performing inspections and testing.
 - 4) Name of concrete manufacturer.
 - 5) Date and time of inspection, sampling, and field testing.
 - 6) Date and time of concrete placement.
 - 7) Location in Work of concrete represented by samples.
 - 8) Date and time sample was obtained.
 - 9) Truck and batch ticket numbers.
 - 10) Design compressive strength at 28 days.
 - 11) Concrete mixture designation, proportions, and materials.
 - 12) Field test results.
 - 13) Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
 - 14) Type of fracture and compressive break strengths at seven days and 28 days.
- C. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.
 - 1. See Contract Documents for Special Inspections.
- D. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172/C 172M to be performed in accordance with the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 - a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing to be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C143/C143M:
 - a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 - b. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C231/C231M pressure method, for normal-weight concrete; [**ASTM C173/C173M volumetric method, for structural lightweight concrete**].
 - a. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C1064/C1064M:
 - a. One test hourly when air temperature is 40 deg F and below or 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C31/C31M:
 - a. Cast and laboratory cure four 6-inch by 12-inch or five 4-inch by 8-inch cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C39/C39M.
 - a. Test one laboratory-cured specimen at seven days and one set of two 6-inch by 12-inch or three 4-inch by 8-inch specimens at 28 days. Hold one specimen for additional testing if required.
 - b. A compressive-strength test to be the average compressive strength from a set of two 6-inch by 12-inch or three 4-inch by 8-inch specimens obtained from same composite sample and tested at age indicated.
7. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi if specified compressive strength is 5000 psi, or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5000 psi.
8. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
9. Additional Tests:

- a. Testing and inspecting agency to make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
 - b. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42/C42M or by other methods as directed by Architect.
 - 1) Acceptance criteria for concrete strength to be in accordance with ACI 301, Section 1.6.6.3.
- 10. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- 11. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- E. Measure floor and slab flatness and levelness in accordance with ASTM E1155 within 24 hours of completion of floor finishing and promptly report test results to Architect.

3.15 PROTECTION

- A. Protect concrete surfaces as follows:
 - 1. Protect from petroleum stains.
 - 2. Diaper hydraulic equipment used over concrete surfaces.
 - 3. Prohibit vehicles from interior concrete slabs.
 - 4. Prohibit use of pipe-cutting machinery over concrete surfaces.
 - 5. Prohibit placement of steel items on concrete surfaces.
 - 6. Prohibit use of acids or acidic detergents over concrete surfaces.
 - 7. Protect liquid floor treatment from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by liquid floor treatments installer.
 - 8. Protect concrete surfaces scheduled to receive surface hardener or polished concrete finish using Floor Slab Protective Covering.

END OF SECTION



Legend	
	1.5" Mill- 1.75" Asphalt Overlay
	Alt 1: 1.5" Mill - Depth Varies Asphalt Overlay
	Alt 2: Asphalt Basketball Court
	Alt 3 Remove Replace Sidewalk Concrete
	New FD Asphalt Area
	Raise CB to Meet Asphalt Elevation
	Repair CB Concrete Surrounds

Construction Notes:
1. 1.75" Type 1 Asphalt surface course overlay in .5" scratch course and 1.25" Asphalt surface course.
2. See Site Plan 2 and 3 of 3 for additional construction notes
3. See included sketch for striping of Basketball court.
4. See Alternate Spec for scope description

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Zanesville Schools
Middle and High School Asphalt Improvements Project
Overall Site Plan
5/5/25



Construction Notes:

- 1. 3" patch (approx 5,800 SFT)- Mill an additional 3" of existing material and install 3" of 301 asphalt base course to bottom of new surface course.
- 2. FD Patch Repair (approx. 4,730 SFT): Remove 8.5" , install 4" 304 aggregate base, 3" 301 asphalt base course to bottom of asphalt surface course.
- 3. New concrete surrounds to match depth and width of existing surrounds.
- 4.. New Full Depth Asphalt Area: excavate 12.5" of existing material, install 8" 304 aggregate base, 3" 301 asphalt base and 1.5" of Type 1 PG64-22 asphalt surface course. Include raising existing CB to .5" below top of new asphalt.

Airbus, Maxar Technologies, USDA/FPAC/GEO, Map data ©2025 50 ft

Legend	
	3" Patch Area Under Overlay
	Alt 3 Remove Replace Sidewalk Concrete
	New FD Asphalt Area
	Raise CB to Meet Asphalt Elevation
	Repair CB Concrete Surrounds

Zanesville Schools
Middle and High School Asphalt Improvements Project
Site Plan 2 of 3
5/5/25



Legend	
	3" Patch Area Under Overlay
	FD Asphalt Patch Area
	Install 4" perforated Drainage Pipe
	Raise CB to Meet Asphalt Elevation
	Repair CB Concrete Surrounds

Construction Notes:

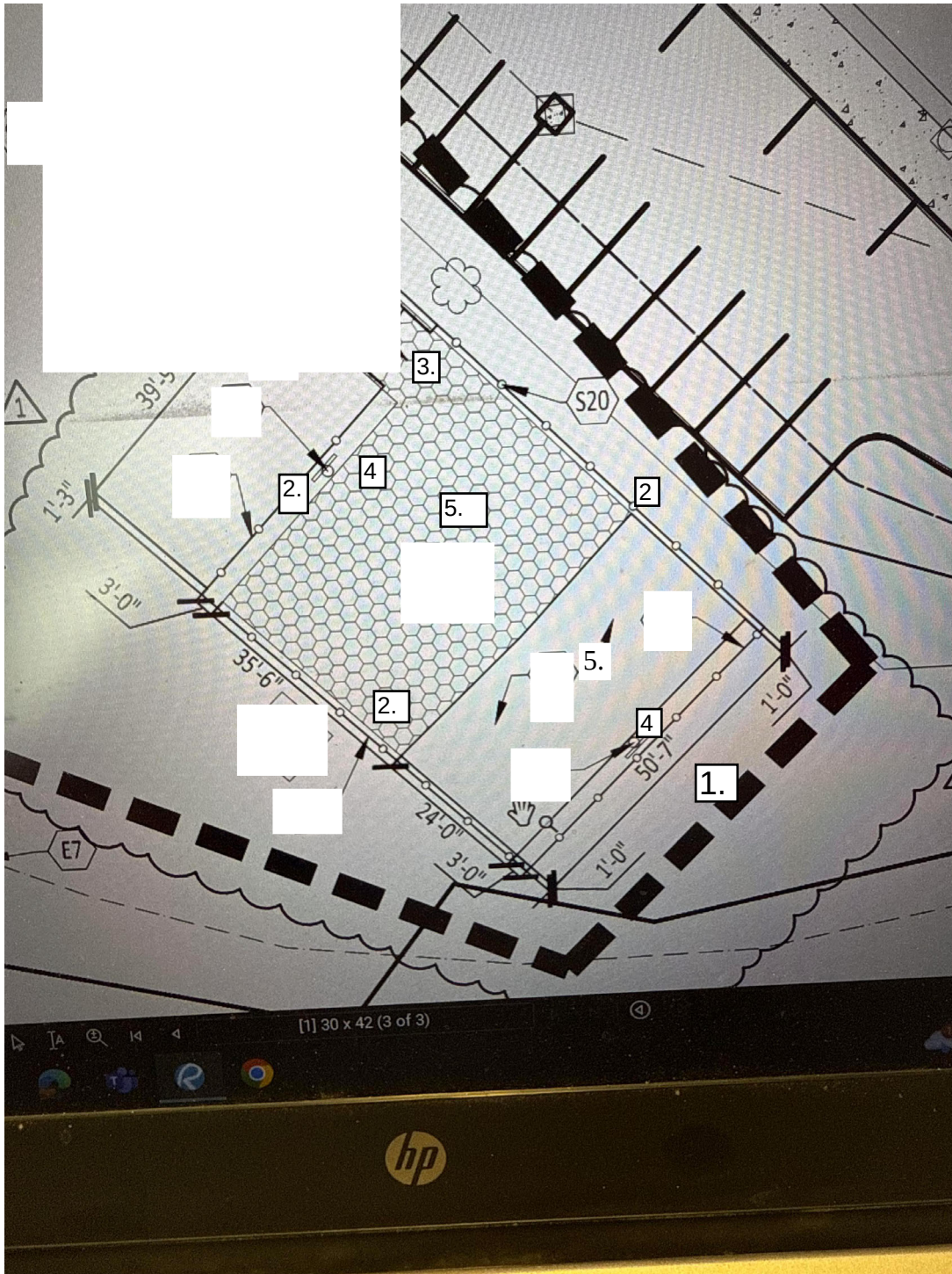
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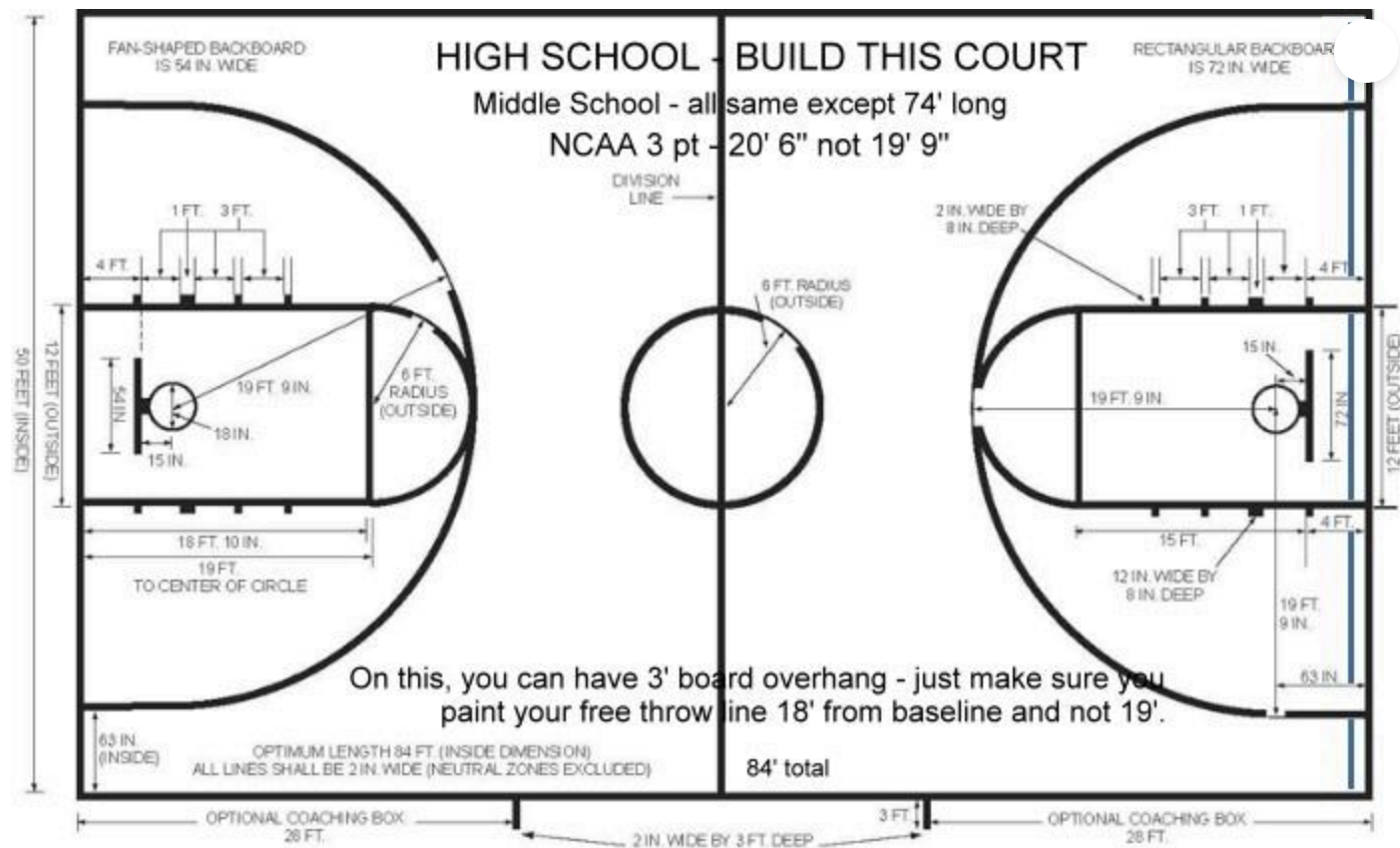
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Zanesville Schools
Middle and High School Asphalt Improvements
Project
Site Plan 3 of 3
5/5/25

Zanesville Middle School New
Basketball Court
1429 Blue Ave
Zanesville, Ohio
5/5/25

1. Fence is existing
2. New Fence (match existing)
3. New double gate
4. Pour new footers and reinstall 2 existing basketball Poles in new location. Poles supplied by the owner
5. New FD asphalt - Balance site, 1.5" Type 2 and 1.5" Type 1 PG64-22 asphalt surface course. approx .51'x 60"





5/5/25