LARAMIE COUNTY COMMUNITY COLLEGE
SCIENCE ROOM RENOVATIONS
CHEYENNE, WYOMING

OWNER:
Laramie County Community College
1400 E. College Drive
Cheyenne, Wyoming 82007
(307) 778-1121
Owner’s Representative: Bill Zink

ARCHITECT:
Tobin & Associates, P.C.
1820 Dillon Avenue, Suite 200A
P.O. Box 2420
Cheyenne, Wyoming 82003
(307) 632-3144
Principal-in-Charge: Kenneth Tobin, AIA
Project Manager: Keith Forbes, Assoc. AIA

MECHANICAL ENGINEER:
Amec Foster Wheeler
920 East Sheridan Street, Suite A
Laramie, Wyoming 82070
(303) 919-2184
Engineer: Nicholas Pickering, P.E.

ELECTRICAL ENGINEER:
Amec Foster Wheeler
920 East Sheridan Street, Suite A
Laramie, Wyoming 82070
(307) 275-0722
Engineer: Rick Shields, P.E.
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INVITATION FOR BID – CONSTRUCTION SERVICES

PROJECT: Science Lab Renovation

BID No.: IFB-17176

DUE DATE & TIME: April 25, 2017 @ 3:00 p.m. (MDST)

BID: Sealed Bids, subject to the terms, conditions and specifications herein stipulated and/or attached hereto, will be received at the Laramie County Community College Contract Office located in the Administration Building on 1400 East College Drive, Cheyenne, WY 82007 until April 25, 2017 at 3:00 p.m. (MDST), and then publicly opened, read aloud and duly recorded.

PRE-BID MEETING: A MANDATORY Pre-Bid meeting and job walk will be held on April 13, 2017 @ 10:00 a.m. (MDST) at the Cheyenne Campus located in Science Center SC-158. Attendance at the Mandatory Pre-Bid meeting is required to bid on this project.

Jamie Spezzano
Director, Contracting & Procurement
Laramie County Community College
1400 East College Drive
Cheyenne, WY 82007
Phone: (307) 778-1280
Fax: (307) 778-4300
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SECTION ONE
DEFINITIONS AND TERMINOLOGY

Wherever used in this bid these or other related procurement documents, the following terms have meanings indicated which are applicable to both the singular and plural thereof.

Addenda: Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bid documents or the related procurement documents.

Architect: Owner's contract consultant and contracted project representative.

Bid and/or Bid Documents: Bid Document, applicable addenda, other affiliated or referenced data specific to said bid.

Bid Process or Period: Begins with issue/publication of bid document to public sector, and concludes at the award of the bid.

Bidder: Vendor, firm, or contractor submitting a Bid

Contractor: Vendor, firm, or company awarded a contract or PO for this Bid

Contract Document: A legally enforceable (binding) agreement between two competent parties; evidenced by an offer and acceptance of offer. Document shall include by reference, all Bid Documents, contractor's bid, negotiated documents, issued addendums, special or supplemental conditions, specifications, and any mutually agreed upon modifications, and/or additions.

Firm: Same as vendor or contractor

Issuing Office: The issuing office for this IFB is Laramie County Community College, 1400 East College Dr., Cheyenne, WY 82007.

LCCC: Laramie County Community College (College) or Owner, one in the same.

Purchase Order: A contractual agreement with a vendor for goods or services that specifies payment terms, delivery dates, item identification, quantities, freight terms, and other obligations and conditions.

Specifications: Those portions of this proposal consisting of written or graphic technical descriptions of materials, equipment, construction systems, standards, workmanship, goods, services, and administrative details applicable thereto.

Vendor: Same as company/contractor/firm.

END OF SECTION ONE
SECTION TWO

INSTRUCTIONS TO BIDDERS AND BID REQUIREMENTS

1. GENERAL CONDITIONS

1.1 Notice is hereby given that LCCC will receive sealed bids up to 3:00 p.m. (MDST), April 25, 2017, at that time to be publicly opened and recorded in the Administration Building, Admin and Finance Conference Room, for the Science Lab Renovation in accordance with the requirements, terms, specifications, conditions, and provisions hereinafter contained.

1.2 Successful firm shall provide LCCC with the services and/or materials as defined by LCCC Policies and this certain Bid Package.

1.3 Bids must be received by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the respective firm.

1.4 Bids shall be sent to the LCCC Purchasing Office or hand-delivered prior to the Bid Opening in a sealed envelope (or package) marked “Sealed Bid”, and referencing the Bid #.

1.5 All bids shall be submitted on the LCCC “BID SUBMITTAL & PRICING DOCUMENT” and must be signed by an authorized official of the firm submitting the Bid.

1.6 Telephone, telegraph, e-mailed or fax bids will not be accepted.

1.7 Any bid which modifies, deletes, or changes any of the conditions or provisions, specifications, or bid requirements will be rejected. Do not deface or alter any portion of the original Bid package.

1.8 By submitting this bid, each firm certifies under penalty of perjury that they have not acted in collusion with any other firm or potential firms. Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the contract of which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement, collusion, communication or conference with any other bidder, firm or person to fix the price or prices in the attach bid or of any other bidder; to fix any overhead, profit, or cost element of the bid price or the bid price of any other bidder; or to secure through any collusion,
conspiracy, connivance or unlawful agreement any advantage against the owner or any person interested in the proposed contract.

2. **PREPARATION OF BID**

2.1 Firms are expected to examine all Drawings, Specifications, instructions and/or requirements of this Bid package. Failure to do so will be at the bidder’s risk. The Bid and all referenced documents must be used in preparation of each bid. LCCC assumes no responsibility for errors, misinterpretations and/or verbal communication resulting from the use of incomplete Bid Documents.

2.2 Each firm shall furnish the information required by the Bid. The **BID SUBMITTAL & PRICING DOCUMENT (see SECTION THREE)** shall be completed, signed, and returned by the respective firm’s authorized agent. All required bid documents must be returned with the bidder’s sealed bid.

2.3 Time, if stated as a number of days, will be in calendar days.

2.4 Any clarification of instructions, terms and conditions, IFB document, or proposal preparation shall be made **only** by the Director of Contracting & Procurement listed in this Bid document under IFB SECTION TWO, Article 6, Paragraph 6.1. Verbal clarifications will not be binding upon LCCC or their Architect. Written clarifications will be by addenda and forwarded to all interested parties.

2.5 Written addenda will be issued by LCCC for any matters regarding submittal of Bid, or issues, questions, comments, and/or clarifications that will affect, alter, modify, or change the original Bid intent or language.

2.6 To ensure uniformity and consistency, strict rules will apply to the communication process and methods during the bid process, all inquiries shall be via written instrument, mailed, faxed or hand-delivered to the appropriate individual as detailed in IFB SECTION TWO, Article 6 Paragraph 6.1. All matters, issues, questions, answers, comments and/or clarifications which meet the criteria identified above in Paragraph 2.5 will be distributed in written format to all potential bidders.

2.7 Each erasure, marking, or other changes that appear on your Bid must be initialed individually by the person signing the Bid.

2.8 Any violation of Bid requirements shall be just cause for rejection of that particular bid without further consideration.

2.9 In the case of error in the extension of prices in the Bid, the unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.
2.10 All Bid prices shall be quoted F.O.B Destination (Cheyenne, WY) with transportation payment terms prepaid and allowed.

3. **PRE-BID MEETING, SITE INSPECTION AND BID DOCUMENTS**

3.1 Prior to submitting bids, vendors are welcome to visit the campus to inform themselves thoroughly as to the conditions involved in providing the materials required by this Bid. Arrangements for such tours should be coordinated thru the Contracts Office.

3.2 **A MANDATORY** pre-bid meeting and job-walk will commence on **April 13, 2017 at 10:00 a.m. (MDST)** at the Science Center SC-158, 1400 E. College Dr., Cheyenne, WY 82007. All potential bidders shall be present and signed in prior to the start of the mandatory Pre-Bid meeting. Once everyone has signed, the sign-in sheet will be taken and the meeting will “officially” start. Anyone not signed in at the “official” start of the meeting will be considered late and will not be allowed to bid on the project.

3.3 LCCC and Architect’s personnel will be present at the pre-Bid meeting to receive questions with respect to interpretation or clarification of this Bid. Any other request(s) by vendors for interpretation or clarification shall be in writing and shall be addressed to the office of the Director of Contracting and Procurement. The receipt of any request and/or corresponding reply will not alter the bid and bid due date. All requests for interpretations of Bid Documents and other questions received at the pre-Bid will be taken with the formal response through an Addendum and be issued to all plan holders.

3.5 Complete sets of the Bid Documents must be used in preparing bids; neither LCCC nor Architect assumes any responsibility for errors or misinterpretations from the use of incomplete sets of Bid Documents.

3.6 LCCC and Architect in making copies of Bid Documents available on the above terms do so only for the purpose of obtaining bids for the work and/or services specified herein, and do not confer a license or grant for any other use.

4. **SUBMISSION / WITHDRAWALS / LATE BIDS / MODIFICATIONS**

4.1 Prospective vendors are instructed to send or deliver their sealed Bids, complete with required “BID SUBMITTAL & PRICING DOCUMENT”, attachments, and addenda, enclosed in one sealed and secure box, envelope, or other package, in a manner that assures receipt by **April 25, 2017 at 3:00 p.m. (MDST)**. Package must be sealed, secured and marked in a prominent manner. A public opening and recording of each received bid will be conducted at this date and time. The Bid opening is a public meeting, open to anyone interested in attending.

4.2 Bids may be withdrawn or amended at any time prior to Bid due date. All such requests must be done via written instrument.
4.3 A Bid that is in the possession of the LCCC Contracts Office may be altered by a telegram, fax, or letter bearing the signature of the official authorizing the Bid, provided that it is received prior to the bid due date and time. Telephone or verbal alterations of a Bid will not be accepted.

4.4 Formal, advertised Bids indicate a date and time by which Bids must be received, Bids received after that time will be returned, unopened to the vendor.

4.5 Each firm submitting a bid agrees that their Bid shall remain valid for a minimum of thirty (30) calendar days from the date of closing of this Bid.

5. QUESTIONS CONCERNING BID

5.1 All inquiries, matters, issues, questions, answers, comments, and/or clarifications concerning this Bid shall be directed to the following individual, and shall be done so via written instrument, mailed, faxed or hand-delivered to:

5.1.1 For matters pertaining to this Bid Document, contact;
- Director, Contracting & Procurement
- 1400 East College Drive
- Cheyenne, WY 82007
- Phone: (307) 778-1280
- Fax: (307) 778-4300
- E-mail: jspezzano@lccc.wy.edu

5.1.2 All matters, issues, questions, answers, comments, and/or clarifications concerning this Bid shall be submitted no later than April 19, 2017 at 5:00 p.m. MDST and may be mailed, faxed, or hand-delivered.

5.2 All matters, issues, questions, answers, comments, and/or clarifications that alter, modify, or change the original Bid intent or language will be addressed formally via a written Bid Addenda. Information gathered by bidders through verbal conversations, phone conversations, e-mails and fax transmittals will NOT be considered formal information and should NOT be used for Bid preparation.

5.3 All issued Addenda must be acknowledged by each respective firm submitting a Bid on the document located in IFB SECTION THREE, titled Addenda Acknowledgement Document.

6. CERTIFICATE OF NON-DISCRIMINATION

The bidder hereby certifies that all persons employed by their firm, their affiliates, subsidiaries, or holding companies are treated equally by their firm without regard to or because of race, religion, ancestry, national origin or sex as required by federal and state anti-discrimination laws. The bidder further certifies and agrees that it will deal with subcontractors, bidders or vendors without regard to or because of race, religion, ancestry, national origin or sex. Violation of this certification may constitute a material breach of contract upon which the owner
may determine to cancel, terminate, or suspend the contract. The Contractor shall comply with the Civil Rights Act of 1964, The Wyoming Fair Employment Practices Act (Wyo. Stat. § 27-9-105 et seq.) the Americans with Disabilities Act (ADA), 42 U.S.C. 12101, et seq., and the Age Discrimination Act of 1975. The Contractor shall not discriminate against any individual on the grounds of age, sex, sexual orientation, gender identity, color, race, religion, national origin or disability in connection with the performance of this Agreement.

7. **SUSPENSION AND DEBARMENT**

Bidder certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction nor from federal financial or non-financial assistance, nor are any of the participants involved in the execution of this agreement suspended, debarred, or voluntarily excluded by any federal department or agency in accordance with Executive Order 12549 (Debarment and Suspension) and CFR 44 Part 17, or are on the disbarred vendors list at www.epls.gov. Further, bidder agrees to notify College by certified mail should it or any of its agents become debarred, suspended, or voluntarily excluded during the term of this Agreement.

8. **CONFLICT OF INTEREST**

In accordance with federal and state regulations, Laramie County Community College has a responsibility to manage, reduce, or eliminate any actual or potential conflicts of interest that may occur with any employee. It is LCCC’s policy that all employees avoid any conflict between their personal interests and those of LCCC. The purpose of this procedure is to ensure that LCCC’s honesty and integrity, and reputation are not compromised. The fundamental principle guiding this procedure is that no employee should have, or appear to have, personal interests or relationships that actually or potentially conflict with the best interests of LCCC. This procedure is intended to enhance the ability of LCCC employees to act ethically in accordance with the values of excellence, integrity, accountability in conduct, with the law, and to fulfill the obligation to be good stewards of the resources that have been entrusted to employees. It is the responsibility of all LCCC employees to conduct fiscal business without even the appearance of impropriety. This procedure is not intended to narrowly define a conflict of interest to only those situations that are defined below but to provide a broad framework for the identification and reporting requirements of potential conflicts of interest.

9. **EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION EMPLOYER**

LCCC is an equal opportunity and affirmative action educational institution and does not discriminate on the basis of race, color, national origin, sex, age, religion, genetic information, political affiliation, disability, veteran status or sexual orientation in admission or access to, or treatment or employment in, its educational programs or activities.
10. **EMPLOYEE WHISTLEBLOWER PROTECTION**

The federal government has enacted a pilot program to add in protecting employees from reprisal by employers for having engaged in certain whistleblowing activities in connection with federal grants and contracts. The program -- the Pilot Program for Enhancement of Employee Whistleblower Protection -- is codified at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act (Public Law 112-239, enacted January 2, 2013).

This Program applies to all employees working for contractors, grantees, subcontractors, and sub-grantees on federal grants and contracts. Under the program, an “employee of a contractor, subcontractor, grantee [or sub-grantee] may not be discharged, demoted, or otherwise discriminated against” as a reprisal for whistleblowing. “Whistleblowing” means disclosing information the employee “reasonably believes is evidence of” any of the following:

- Gross mismanagement of a federal contract or grant;
- The gross waste of federal funds;
- An abuse of authority relating to a federal contract or grant;
- A substantial and specific danger to public health or safety; or,
- A violation of law or regulation related to a federal contract or grant (including the competition for, or negotiation of, a contract or grant).

Whistleblower protections are triggered if the employee discloses the above type of information to any of the following:

- A member of Congress, or a representative of a Congressional committee;
- An Inspector General;
- The Government Accountability Office;
- A federal employee responsible for contract or grant oversight or management at the relevant agency;
- An authorized official from the Department of Justice, or other law enforcement agency;
- A court or grand jury; or,
- A management official or other employee of the contractor, subcontractor, grantee, or sub-grantee who has responsibility to investigate, discover or address misconduct.

Whistleblower protections cannot be waived by any agreement, policy, form, or condition of employment.

Laramie County Community College is committed to complying with this Pilot Program and to ensuring that employees are not discharged, demoted, or otherwise discriminated against as a reprisal for whistleblowing, and is initiating procedures to comply with the requirements of this new program, including providing this notice to employees of the rights and remedies under the Pilot Program. Additional details, including procedures for filing complaints, may be found in the full statute 41 U.S.C. 4712 (Section 828) and at Federal Regulations, 48 C.F.R. 3.908.

Disclosure or reporting of the types of activities covered by the Pilot Program may be raised in a variety of ways, including through a managerial employee of
LCCC or by contacting the Accounting Compliance Supervisor at 778-1225. LCCC will not retaliate against an individual for having made a report in good faith.

The bidder hereby certifies that all persons employed by their firm, their affiliates, subsidiaries, or holding companies are treated equally by their firm without regard to or because of race, religion, ancestry, national origin or sex as required by federal and state anti-discrimination laws. The bidder further certifies and agrees that it will deal with subcontractors, bidders or vendors without regard to or because of race, religion, ancestry, national origin or sex. Violation of this certification may constitute a material breach of contract upon which the owner may determine to cancel, terminate, or suspend the contract.

11. **CONTRACT CONDITIONS**

11.1 The scope of work and/or services shall commence upon signing of a Contract.

11.2 The vendor who is awarded a Contract is prohibited from sub-contracting, assigning, transferring, or otherwise disposing of the agreement or its’ rights, title or interest therein to any other party without the prior written consent of the Vice President of Administration and Finance Services or the Director of Contracting and Procurement, or their designated representative. All approved assignments or other transfers referred to herein must abide by the provisions of the Contract.

11.3 LCCC will execute the contract incorporating all of the specifications, requirements, terms, conditions, and provisions included in the Bid and any additional documents or data provided by LCCC or the successful firm and are deemed relevant for inclusion by LCCC.

11.4 The successful firm will be expected to properly and promptly execute this Contract. Failure to do so could result in cancellation of this Bid award to the recommended vendor. Should this happen, the Bid process may be started anew, if deemed necessary by LCCC.

12. **INSURANCE REQUIREMENTS**

12.1 Throughout the term of the Contract, the successful firm shall carry and pay the premium for Certificate of Liability Insurance per Exhibit “B”, with such policies of insurance limits satisfactory to LCCC as will protect LCCC; its Board of Trustees, officers, employees, Architect’s, and agents; individually and collectively from Worker’s Compensation claims and from any other claims for damages to property or for bodily injury, including death, which may arise from or in connection with the operations under this Contract, whether such operations be by the successful firm or by any subcontractor firm or anyone directly or indirectly employed by either of them. Such insurance shall cover all contractual obligations which the successful firm has assumed.
12.2 The limits of the insurance coverage(s) listed above shall be in compliance with IFB Document Exhibit “B”.

12.3 Prior to the commencement of the Contract, the successful firm shall deliver certificates of insurance evidencing such policy or policies to the LCCC Director of Contracting & Procurement. These certificates of insurance are to contain the endorsements set forth below.

12.4 “Hold Harmless” Clause: [with statement on certificate that these endorsements are included in the policy(ies)]. The successful firm assumes the liability for all losses, damages (including loss of use), expenses, demands and claims in connection with or arising out of any injury or alleged injury to persons (including death) or damages or alleged damage to property, sustained or alleged to have been sustained in connection with or to have arisen out of the performance of the work by the successful firm, the subcontractor firms, and their agents, servants and employees, including losses, expenses, or damages sustained by LCCC. The successful firm hereby undertakes and agrees to indemnify and hold harmless LCCC; its Board of Trustees, officers, employees, Architect’s and agents; individually and collectively, from any and all such losses, expenses, damages (including loss of use), demands and claims, and shall defend any suit or action brought against them, or any of them, based on any such alleged injury (including death) or damage (including loss of use), shall pay all damages, judgments, costs, and expenses, including attorney’s fees in connection with said demands and claims resulting therefrom. However, successful firm does not assume liability for nor indemnify LCCC against any such losses resulting from the sole negligence of LCCC or its employees or agents.

12.5 “Cancellation” Clause: The policies of insurance covered by this certificate will not be allowed to expire, be canceled, terminated or materially altered prior to their maturity date unless there shall be given no less than thirty (30) days prior written notice by certified or registered mail to LCCC’s Director of Contracting & Procurement.

12.6 “Additional Insured” Clause: LCCC shall be listed as an additional named insured on all policies, but only with respect to operations of successful firm under the Contract.

12.7 The procuring of the insurance required under the Contract shall not relieve the successful firm of any obligation or liability assumed under this Contract, including specifically the Indemnification Agreement that follows below in Paragraph 8.8. The successful firm may carry at own expense such additional insurance as it may deem necessary. The successful firm shall assist and cooperate in every manner possible in connection with the adjustment of all claims arising out of successful firm’s operations within the scope provided for under the Contract, and shall cooperate with the insurance carrier in all litigated claims and demands, arising from said operations, which the insurance carrier or carriers are called upon to adjust or resist.
12.8 **Indemnification Agreement:** To the extent permitted by law, successful firm shall indemnify and hold harmless LCCC; and its Board of Trustees, officers, employees, Architect’s and agents; individually and collectively, from any and all losses, damages *(including loss of use)*, expenses, demands and claims in connection with or arising out of any injury or alleged injury to persons *(including death)* or damage or alleged damage to property, sustained or alleged to have been sustained in connection with or to have arisen out of the performance of the work by the successful firm, the subcontractor firms, and their agents, servants, and employees, including losses, expenses, or damages sustained by LCCC. The successful firm shall defend any suit or action brought against them, or any of them, based on any such alleged injury *(including death)* or damage *(including loss of use)*, and shall pay all damages, judgments, costs, and expenses, including attorneys’ fees in connection with said demands and claims resulting therefrom.

12.9 In the event that the successful firm shall fail to maintain and keep in force Comprehensive General Bodily Injury and Property Damage Liability Insurance, Workers’ Compensation Coverage, and other insurance coverage's, as hereinabove provided, LCCC shall have the right to cancel and terminate the Contract forthwith and without notice.

13. **APPLICABLE WYOMING STATE STATUTES**

13.1 LCCC shall apply the following State of Wyoming Statutes to this Bid.

- 13.1.1 §16-6-101 through 121 titled “Public Property – Public Works and Contracts”.
- 13.1.2 §16-6-201 through 206 titled “Preference for State Laborers”.
- 9.1.3 §16-6-701 through 708 titled “Construction Contracts with Public Entities”.

13.2 Expenditures or contracts involving federal funds are subject to federal rules and regulations, therefore under these conditions, State of Wyoming preference laws do not apply.

13.3 Final payment will be made subsequent to a forty-one (41) day advertising period, as required by Wyoming Statute §16-6-117. The final payment is also conditioned upon receipt of a sworn affidavit as required by this Statute. Said affidavit shall be completed by Contractor stating that all claims for materials and labor under the contract have been paid in full. Should there be a disputed claim, the affidavit shall so state the exact amount to be withheld from the final payment.

13.4 Acknowledgement and compliance with applicable State Statutes is the sole responsibility of the “Prime” or “General” Contractor and all subcontractors. LCCC reserves the right to request written verification of same.
14. **LAWS AND REGULATIONS**

14.1 Successful firm shall comply with all laws, ordinances, and regulations of any applicable federal, state, county, or city government applicable to the performance of the services described herein. LCCC agrees to provide all cooperation reasonably necessary for such compliance. In addition, successful firm shall also comply with all LCCC policies and regulations as may currently and/or in the future pertain to service under the subsequent Contract. These laws, ordinances, regulations, and policies shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though written out in full.

14.2 The Davis-Bacon and Related Acts, apply to contractors and subcontractors performing on federally funded or assisted contracts in excess of $2,000 for the construction, alteration, or repair (including painting and decorating) of public buildings or public works. [https://www.dol.gov/whd/govcontracts/dbra.htm](https://www.dol.gov/whd/govcontracts/dbra.htm) Davis-Bacon Act and Related Act contractors and subcontractors must pay their laborers and mechanics employed under the contract no less than the locally prevailing wages ([https://www.wdol.gov/dba.aspx](https://www.wdol.gov/dba.aspx) WD Number is WY23) and fringe benefits for corresponding work on similar projects in the area. The Davis-Bacon Act directs the Department of Labor to determine such locally prevailing wage rates.

The Davis-Bacon Act applies to contractors and subcontractors performing work on federal or District of Columbia contracts. The Davis-Bacon Act prevailing wage provisions apply to the “Related Acts,” under which federal agencies assist construction projects through grants, loans, loan guarantees, and insurance.

For prime contracts in excess of $100,000, contractors and subcontractors must also, under the provisions of the Contract Work Hours and Safety Standards Act, as amended, pay laborers and mechanics, including guards and watchmen, at least one and one-half times their regular rate of pay for all hours worked over forty (40) in a workweek. The overtime provisions of the Fair Labor Standards Act may also apply to DBA-covered contracts.

15. **LICENSES AND TAXES**

Contractor shall secure and pay for all federal, state, and local licenses required for the performance of the work and/or services provided for herein. LCCC will cooperate with successful firm in obtaining all licenses and will execute such documents as shall be reasonably necessary or appropriate for such purposes. Successful firm shall pay for any and all taxes and assessments attributable to the performance of the contract work and/or services provided herein including but not limited to sales taxes, excise taxes, payroll taxes, and federal, state, and local income taxes.
16. QUALIFICATIONS OF CONTRACTOR

16.1 The contractor quoting on this project may be required to submit three (3) letters of reference from persons for whom they have done the type of work described by these specifications within the last three (3) years. In the event that the contractor has performed this type of work for Laramie County Community College within the last three (3) years, no letters of reference are required. In the event that such letters are not available, contractors shall supply the owner's representative with the names, phone numbers, and addresses of persons or firms for whom they have done this type of work during the last three (3) years.

16.2 Contractor and each of its sub-contractors hereunder, if any, shall at its sole expense, obtain insurance as detailed in Exhibit “B” from reliable insurance companies acceptable to LCCC, with limits specified in U.S. currency or equivalent. Such insurance shall be in force at the time the contract has commenced and shall remain in force for the duration of this contract, unless a later date is specified by LCCC.

16.3 Contractor shall secure and pay for all federal, state or local licenses and/or permits required for this specific scope of work provided for herein.

16.4 The Contractor shall function as an independent contractor for the purposes of this Agreement and shall not be considered an employee of LCCC. It is intended that the fees paid hereunder shall constitute earnings from self-employment income. The Contractor shall assume sole responsibility for and indemnify LCCC against liability for any debts, liabilities, taxes, duties, fees or fiscal charges that may be incurred by the Contractor in fulfilling the terms of this Agreement. LCCC will not withhold any amounts therefrom as U.S. Federal income tax withholdings from wages or as employee contributions under the U.S. Federal Insurance Contributions Act or make employer contributions thereunder with respect thereto. Contractor shall be solely responsible for the reporting, estimation and payment of all income taxes, fees, and other contributions on or attributable to self-employment income attributable to the fees payable hereunder.

17. SAFETY AND HEALTH

17.1 The successful firm shall comply with the Occupational Safety and Health Act (OSHA) of 1970 and the American Disability Act (ADA) of 1992 or the applicable standards promulgated under said Acts.

17.2 The successful firm shall take reasonable and proper care and shall use and maintain LCCC property, facilities and equipment under its care, custody, and control in a manner which shall not cause any violations, abuse, or misuse of said property, facilities, and/or equipment.

17.3 The contractor shall be responsible for implementing safety measures for the protection of their employees and members of the public during all phases of the contract work. The contractor shall be responsible for the
supply and placement of traffic safety cones, barricades, warning signs, etc. Work shall be performed in compliance with OSHA regulations and other relevant and applicable codes and regulations.

17.4 If successful firm’s bid requires a capital investment for the performance of this Contract, such capital investment program shall be free of conditions which violate OSHA and ADA or other applicable standards. Should repairs, alterations, modifications, or replacements be required to comply with the cited Acts, such action shall be the responsibility of the successful firm. Should a determination be required as to whether a specific condition violates said Acts, such determination shall be made by a competent safety Architect or safety consultant.

17.5 Should successful firm furnish equipment for the performance of this Bid, such equipment shall be free of conditions which violate OSHA and ADA, or their applicable standards. Should repairs, alterations, modifications, or replacements be required to comply with the cited Acts, such action shall be the responsibility of successful firm.

17.6 The successful firm shall comply with and conform to all applicable fire, and public safety, laws, regulations, ordinances, code requirements, as well as LCCC’s safety regulations.

18. HAZARDOUS MATERIALS

18.1 The contractor agrees to indemnify and hold Laramie County Community College harmless for any release of any kind of toxic wastes or hazardous material, or any violation of any law or regulation of the EPA or DEQ that is caused by the contractor or any of the contractor’s subcontractors.

18.2 Contractor shall provide LCCC with a current copy of all applicable Material Safety Data Sheets (MSDS) for each chemical, material, or product used during the performance of this scope of work.

18.3 Contractor is responsible for ensuring that all personnel who handle chemicals, materials, or products (and their respective wastes) are knowledgeable and properly trained, and that these chemicals, materials, or products are properly used, applied, handled, stored, transported and disposed of in accordance with federal, state, and local rules, regulations, and/or requirements.

18.4 Contractor shall provide knowledge of proper spill prevention and spill response methods for all chemicals or hazardous materials in use.

18.5 Contractor shall NOT dispose of any hazardous waste on campus. Contractor is responsible for off-site hazardous waste disposal, and any associated costs, fees, or permits associated with such disposal.
19. RESPONSIBILITIES OF BIDDER

19.1 The firm awarded the Bid shall comply with all applicable City of Cheyenne WY, Laramie County WY, State of Wyoming, and federal laws, regulation, codes, and standards.

19.2 Each bidder is solely responsible for all costs borne and associated with the preparation and delivery of this Bid, and shall not be reimbursed by LCCC. Said costs may include (but not limited to) labor, travel, materials, licenses, administrative expenses, and personal charges.

19.3 It is the responsibility of each firm before submitting a Bid to:
   a) Examine, study, and be familiar with complete Bid and referenced documents.
   b) Visit the LCCC site and become familiar with local and site conditions, if necessary.
   c) Promptly give LCCC written notice of all conflicts, errors, ambiguities, or discrepancies that the bidder discovers in the Bid or its’ related documents.

19.4 Each Bid shall be accompanied by a bid bond, certified check, or cashier’s check in an amount of 5% of the Bid. The bid security shall be drawn upon a surety company with a rating of “A” or better according to the Best Publication and licensed in the state of Wyoming. The security shall be made payable without condition to LCCC as a guarantee that if the bid is accepted, the bidder will enter into a contract with LCCC for the work prescribed by said bid. The bid security of all bidders will be retained until the contract is awarded or other disposition has been made. If the successful bidder fails to execute a contract and/or agreement and to furnish performance and payment bonds and other required documentation within ten (10) days of notice of award, LCCC shall be entitled to collect the amount of the bidder’s proposal guarantee and costs of any legal fees incurred for collection of the bid bond or any damages incurred by LCCC as liquidated damages as to award the prescribed bid work by the successful bidder to another bidder or to re-advertise the bid or otherwise dispose of the said bid as LCCC may see fit.

19.5 The successful bidder shall be required as per Wyoming Statute §16-6-112 to provide a contractor’s performance and payment bond or other guarantee in an amount equal to 100% of the contract sum. If the contract sum is one hundred thousand dollars ($100,000.00) or less, other forms of bond or guarantee may be approved by LCCC prior to acceptance of such bond or guarantee. The bonding company must have a rating of “A” or better according to Best Publication.

19.6 Each applicant is solely responsible for any cost incurred prior to issuance of a legally executed contract. No property interest, of any kind or nature, shall accrue until a contract is awarded and signed by all parties.
19.7 The undersigned Bidder proposes and agrees, if this Bid is accepted, to perform all work and/or services as specified or indicated in the Bid Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bid Documents. Bidder acknowledges that they have included the cost of all insurance requirements, permits, bonds and taxes as required, and will execute and return same in the time allotted within the general conditions of the Bid Documents and subsequently issued Contract.

19.8 Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, and performance of the work and/or services. Bidder has correlated the information known to bidder, information and observations from visits to the work site, reports and drawings identified in the Bid Documents.

19.9 Bidder is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress and performance of the work and/or services.

19.10 Bidder does not consider that any further examinations, investigations, explorations, tests, studies, specifications, or date are necessary for the determination of this bid for performance of the work and/or services at the price(s) bid and within the times and in accordance with the other items and conditions of the Bid Documents.

19.11 Bidder has given LCCC and Architect written notice of all conflicts, errors, ambiguities or discrepancies that the bidder has discovered in the Bid Documents, and the written resolution thereof by LCCC and Architect is acceptable to bidder. The Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work and/or services for which this Bid is submitted.

19.12 Any assumption, exception or exclusion related to any part of the Bid Documents must be noted prior to Bid Due/Opening Date, and may result in bidder being disqualified or reduced in standing. Assumptions, exceptions or exclusions taken after issuance of a “Notice of Award” document may also result in disqualification.

19.13 **OSHA Training Certification:** For public construction contracts estimated to cost more than $30,000, contractors must certify in the bid or the contract that all employees to be employed at the worksite will have completed a course in construction safety and health that is at least ten hours (10-hour card) in duration and has been approved by the United States Occupational Safety and Health Administration.

19.14 Bidder shall supply a subcontractor and supplier list with submittal. Bidder shall identify individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information:
   a) Name, address, telephone number and email of entity performing subcontract work or supplying products.
20. TRADING NAME AND SUBSTITUTION PROVISIONS

20.1 Trade names designated in the specifications are used as an acceptable standard quality. Products of other manufacturers will not be considered unless specifically stated. Substitutes or equals are not acceptable where non-substitution is specified in the Bid Document.

20.2 It is the intent of the Bid Documents that the work be completed in all respects in accordance with the subsequent Contract Documents. This work is to be bid exactly as specified. Where details and/or specifications are incomplete or unclear, the Bidder should request clarification in writing prior to the Bid due date.

21. BID EVALUATION CRITERIA / AWARD OF BID

21.1 In evaluating Bids, LCCC personnel will consider whether or not the Bid complies with the prescribed Bid requirements and specifications per the Bid Document.

21.2 Acceptable and responsive Bids will be evaluated per the criteria detailed in the Bid Documents. Any assumptions, exceptions or exclusions related to any part of the Bid Documents may result in a bidder being disqualified or reduced in standing.

21.3 LCCC reserves the right to reject any or all Bids, including without limitation, if they are, in its’ sole discretion judged unacceptable, non-responsive, non-conforming, conditional, to waive any technical or formal defect therein, to accept or reject any part of a Bid, to reject or disapprove of any vendor as may be in the best interests of LCCC.

21.4 Cost may not be the sole basis for selection, since it is in LCCC’s best interest to obtain materials and/or services which best meet our needs, specifications, and requirements. In addition to price, the following will be considered in the evaluation of this Bid:

21.4.1 The ability, capacity, and skill of the bidder to perform the service or provide the material required, including the sufficiency of financial resources available.

21.4.2 The character, integrity, reputation, judgment, and experience of the bidder.

21.4.3 The quality and quantity of performance of previous contracts.

21.5 Upon review of the Bids, LCCC reserves the right to request the following additional information:

21.5.1 A break-down of bid costs to a reasonable level of detail.

21.5.2 An accounting review of bidders costs and submitted Bid.
21.5.3 Written Bidder verification of Bid Pricing and Specifications.

21.5.4 Other additional information that may be applicable to the evaluation and award of this Bid.

21.6 The Bid will be awarded to the lowest, most responsive and most responsible bidder complying with the prescribed Bid requirements and specifications, provided the price is reasonable and it is in the best interests of, and most advantageous to LCCC to accept it. The Director of Contracting & Procurement reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in the best interest of LCCC. Said individual also reserves the right to reject the Bid of a bidder who has previously failed to perform properly or complete on time or on budget services of a similar nature, or a Bid of a bidder whose investigation shows is not in a position to perform the specified service.

21.7 LCCC reserves the right to negotiate with the successful Bidder any required changes and/or modifications to this Bid prior to signature of a Contract, if deemed in the best interest of LCCC to obtain the objectives and intent of this Bid, including (but not limited to) budget compliance, scope of work modification, additions and/or deletions.

22. OWNERSHIP OF DOCUMENTS / COLLEGE PROPERTY

All drawings, specifications, pictures, data, information, documents, Bid related documents, and subsequent contract and/or PO documents are considered the sole property of LCCC and/or the Architect, and shall not be transmitted in any fashion or form without the express written consent of the LCCC legal counsel, Vice President of Administration and Finance Services, or their designated representative and the Architect's Principal-in-Charge.

23. MATERIAL AVAILABILITY

23.1 It is the responsibility of each bidder to verify the availability of material(s), delivery schedules, fabrication and manufacturing schedules and other pertinent data prior to submission of their Bid; and the responsibility of the successful bidder to provide same after award of the Bid. It is the responsibility of the bidder to notify LCCC immediately if material(s) specified are discontinued, replaced, or not available for an extended period to time. LCCC reserves the right to charge back additional costs, including but not limited to, freight, special handling, and purchase price difference due to delays, etc., to the successful bidder when items are not supplied as bid.

23.2 Failure of a bidder to furnish, within the time specified per the Bid for equipment, supplies, materials, services, and/or other items on which a Bid award is made, shall be cause for removal of bidder from the active list of bidders.
24. **PUBLIC INFORMATION**

All information, except that classified as confidential and/or proprietary, will become public information at the time that the Bid is awarded in accordance with applicable sections of the federal “Freedom of Information Act (FOIA) and Wyoming State Statute §16-4-201. Confidential and/or proprietary information must be marked “CONFIDENTIAL” and/or “PROPRIETARY” in bold letters in the upper right hand corner of each sheet (page) containing the confidential information. Price and information concerning the Bid specifications cannot be considered confidential. All information identified as confidential and/or proprietary will remain confidential unless LCCC is required by legal order to make it available to the public or to particular parties.

25. **PROTESTS**

Any firm or vendor who is allegedly aggrieved in connection with the solicitation of a Bid, or award of a contract may protest. The protest must be submitted in writing to the Director of Contracting & Procurement within five (5) days after notification to all firms of intent to award. If the protest is not resolved by mutual agreement, the Director of Contracting & Procurement will promptly issue a decision in writing to the protestant. If the protestant wished to appeal the decision rendered, such appeal must be made in writing to the LCCC Vice President of Administration and Finance Services. The decision of this VP will be final. Unless this procedure is followed, a protest need not be considered by LCCC.

26. **RESPONSIBILITIES OF LCCC**

26.1 Execute Notice of Award, Notice to Proceed, Contract and/or Agreement following approval and award to the successful bidder.

26.2 Provide to all bidders any applicable documentation, drawings, specifications, records, or other data required to complete this bid.

26.3 Provide as required, uniform and consistent written documentation to all potential bidders deemed to be support assistance and as necessary to complete a Bid submittal.

26.4 LCCC may conduct such investigations as deemed necessary to establish the responsibility, qualifications, and financial ability of a bidder, their suppliers, affiliates, consultants, and/or sub-contractors to perform the services in accordance with this Bid.

27. **PAYMENT SCHEDULE**

27.1 LCCC shall make progress payments against the Bid Compensation sum which shall be submitted on an “Application and Certification for Payment (AIA Document G702 or equivalent). Each Application for Payment shall be one (1) calendar month ending on the last day of the respective month.
27.2. Each payment shall include detailed invoices as required by LCCC policies and procedures or other applicable regulations.

27.3 Final payment will be made subsequent to a forty-one (41) day advertising period, as required by Wyoming Statute §16-6-116 and 117. The final payment is also conditioned upon receipt of a sworn affidavit as required by this Statute. Said affidavit shall be completed by Contractor stating that all claims for materials and labor under the contract have been paid in full. Should there be a disputed claim, the affidavit shall so state the exact amount to be withheld from the final payment.

28. TAX EXEMPTION

LCCC is exempt from Wyoming sales or use tax for direct purchases of materials and supplies. A copy of the Wyoming Sales Tax Exemption Form will be issued upon request. LCCC’s federal identification number is 83-6009473.

29. FEDERAL PROJECT FUNDING

Funding for this project is partially federally funded and may necessitate adherence to the OMB Uniform Grant Guidance – Code of Federal Regulations Title 2: Grants and Agreements Part 200: Uniform Administrative Requirements, cost Principals, and Audit Requirements for Federal Awards.

END OF SECTION TWO
SECTION THREE

BID SUBMITTAL & PRICING DOCUMENT

DO NOT MODIFY BID DOCUMENT – Any modification or alteration to this Document from its original format will result in rejection of the respective Bid. BID FORM TO BE COMPLETED IN ITS ENTIRETY, SIGNED IN INK, AND SUBMITTED IN ITS ENTIRETY.

Bid No.: IFB-17176

Bid Description: Science Lab Renovation

Bid Due/Opening Date: April 25, 2017, @ 3:00 p.m. (MDST)

This Bid shall be submitted to:
Laramie County Community College
Admin & Finance Services – Contracts Office /
Administration Building, AM-108
1400 East College Drive, Cheyenne, WY 82007

1. BID REQUIREMENTS AND FORMAT

1.1 An original Bid shall be completed on this document titled “BID SUBMITTAL & PRICING DOCUMENT” and submitted per the specifications and requirements of Bid No. IFB-17176. Failure to complete or submit any required portion of this BID SUBMITTAL & PRICING DOCUMENT; and/or to deface or alter any portion of the Bid Documents shall be cause for rejection of said Bid as being unacceptable, non-responsive, non-conforming or conditional.

1.2 The undersigned agrees that their Bid will not be withdrawn for a period of forty-five (45) days from the date of Bid opening.
1.3 The undersigned Bidder proposes and agrees, if this Bid is accepted, to perform all work and/or services as specified or indicated in the Bid Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bid Documents. Bidder acknowledges that they have included the cost of all insurance requirements, permits, bonds and taxes as required, and will execute and return same in the time allotted within the general conditions of the Bid Documents and subsequently issued Contract.

1.4 Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, and performance of the work and/or services. Bidder has correlated the information known to bidder, information and observations from visits to the work site, reports and drawings identified in the Bid Documents.

1.5 Bidder is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress and performance of the work and/or services.

1.6 Bidder does not consider that any further examinations, investigations, explorations, tests, studies, specifications, or date are necessary for the determination of this bid for performance of the work and/or services at the price(s) bid and within the times and in accordance with the other items and conditions of the Bid Documents.

1.7 Bidder has given LCCC and Architect written notice of all conflicts, errors, ambiguities or discrepancies that the bidder has discovered in the Bid Documents, and the written resolution thereof by LCCC and Architect/Architect is acceptable to bidder. The Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work and/or services for which this Bid is submitted.

1.8 Any assumption, exception or exclusion related to any part of the Bid Documents must be noted prior to Bid Due/Opening Date, and may result in bidder being disqualified or reduced in standing. Assumptions, exceptions or exclusions taken after issuance of a “Notice of Award” document may also result in disqualification.

1.9 Bidder acknowledges receipt of complete Bid Document package, including all incorporated and attached Bid Documents.

1.10 Acknowledgement and compliance with applicable State Statutes is the sole responsibility of the “Prime” or “General” Contractor and all subcontractors. LCCC reserves the right to request written verification of same.

2. PROJECT SCOPE AND DETAILS

2.1 The work includes, but is not limited to removing existing casework, sinks, wall mounted items, vinyl wall covering and wall base, cutting and...
removing small portions of concrete floor slab, relocating existing casework, new casework, mounting of Owner provided marker boards and interactive touch-screen monitor, patching of concrete slab, new fluid applied flooring and wall base, small amount of gypsum wall and patching of existing gypsum walls, plumbing demolition associated with sink removal, new sink and associated plumbing, electrical power and data system modifications. All materials, services and/or work not specifically mentioned which are necessary in order to provide a complete project shall be included in the bid and shall conform to all applicable local, state, and federal requirements in accordance with the requirements, terms, specifications, conditions, and provisions hereinafter contained.

2.2 Project Representatives

<table>
<thead>
<tr>
<th></th>
<th>Architect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LCCC</strong></td>
<td>Tobin &amp; Associates</td>
</tr>
<tr>
<td>Bill Zink</td>
<td>Keith Forbes, Assoc., AIA</td>
</tr>
<tr>
<td>Assistant Director, Physical Plant</td>
<td>Tobin &amp; Associates</td>
</tr>
<tr>
<td>(307) 778-1121</td>
<td>(307) 632-3144 x125</td>
</tr>
<tr>
<td><a href="mailto:bzink@lccc.wy.edu">bzink@lccc.wy.edu</a></td>
<td><a href="mailto:keith@tobin-assoc.com">keith@tobin-assoc.com</a></td>
</tr>
</tbody>
</table>

2.3 Estimated Project Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Invitation for Bid</td>
<td>April 4, 2017</td>
</tr>
<tr>
<td>Mandatory Pre-bid Meeting</td>
<td>April 13, 2017 @ 10:00 a.m.</td>
</tr>
<tr>
<td>Deadline for Questions</td>
<td>April 19, 2017</td>
</tr>
<tr>
<td>Issue Addendum, if necessary</td>
<td>April 21, 2017</td>
</tr>
<tr>
<td>Bid Responses Due</td>
<td>April 25, 2017</td>
</tr>
<tr>
<td>Notice of Award</td>
<td>May 1, 2017</td>
</tr>
<tr>
<td>Notice to Proceed with Submittals</td>
<td>May 10, 2017</td>
</tr>
<tr>
<td>Notice to Proceed with Construction</td>
<td>May 15, 2017</td>
</tr>
<tr>
<td>Substantial Completion</td>
<td>August 1, 2017</td>
</tr>
</tbody>
</table>

2.4 Liquidated Damages: For failure to complete the Work on time, It is mutually agreed by and between the parties hereto that time is of the essence and that in the case of the Contractor’s failure to complete the contract within the time specified and agreed upon (substantial completion date), the Owner will be damaged thereby; and because it is difficult to definitely ascertain and prove the amount of said damages, it is hereby agreed that the amount of such damages shall be the liquidated sum of Five Hundred Fifty Dollars ($500.00) per calendar day for every day’s delay in finishing the Work in excess of the number of working days prescribed until such time as the Work is completed and accepted via written instrument by the Owner; and the Contractor hereby agrees that said sum shall be deducted from monies due the contractor under the contract or if no money is due the Contractor, the Contractor hereby agrees to pay to the Owner as liquidated damages, and not by way of penalty, such total sum as shall be due for such delay.
If the Contractor has not completed all Punch List items within sixty (60) days from when the list was generated, the Owner may address the Punch List items with other forces and back-charge the Contractor for those forces in addition to days of non-compliance.

3. **BASE BID PRICE SCHEDULE**

3.1 The undersigned, in compliance with the Bid Document package requirements and instructions, having read and examined same, and having visited the site of the proposed work, and being familiar with the conditions surrounding the Bid Project, including availability of materials, utilities and labor, proposes to perform the proposed scope of work for the proposed price which includes *(but is not limited to)* the furnishing of labor, materials, shop drawings *(if required)*, transportation, tools, equipment, insurance, bonds, applicable taxes, temporary provisions, escalation, overhead and profits necessary for the completion of the work in accordance with and described, indicated or reasonably inferred per this certain Bid Document package.

3.2 Each submitted Bid shall have a Base Bid. Bid values shall be written in words and in figures, discrepancies between words and figures will be resolved in favor of written words.

3.3 Total Project Base Bid, exclusive of Alternate Prices:

Total Project Base Bid $___________________________

Bid Written in Words

3.4 Alternate #1: Fluid applied flooring overlay

Alternate Price #1: $___________________________

Alternate Bid Price #1 Written in Words

3.5 Alternate #2: Wood laboratory casework

Alternate Price #2: $___________________________

Alternate Bid Price #2 Written in Words

4. **STATE STATUTES AND REGULATIONS**

**WYOMING RESIDENT CONTRACTOR**

4.1 Are you submitting this Bid as a Wyoming Resident Contractor?

☐ No

☐ Yes, my Contractor Residency Certification Number is

Invitation to Bid Document #00-501

Bid No. IFB-17176

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_________________, and my bid complies with Wyoming Statutes §16-6-101 through 107 and §16-6-1001. This Bid will be awarded based on the Contractor’s statement of meeting the requirements of these Wyoming Statutes. Subsequent information verifying the statute retirements have been met may be required up to and including possible audits to confirm that the contractor has not subcontracted more than a total of 30% of the work covered by his contract to non-resident subcontractors and non-resident sub-tier contractors and that other applicable statute requirements have been met. (Certificate of Residency must be current and on file with the State of Wyoming Department of Employment, Labor Standards Division (307.777.7261).

4.2 Debarment/Suspension: A Vendor certifies, by submission of their respective Bid, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of State or Federal benefits by State or Federal court, or voluntarily excluded from participation in this transaction by any State or Federal department or agency. Submission is also agreement that LCCC will be notified of any change in this status. Additionally:

a) Have not within a three-year period preceding this transaction been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and,

b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or Local) with commission of any of the offenses enumerated in Paragraph “a” above; and have not within a three-year period preceding this transaction had one or more public transactions (Federal, State, or Local) terminated for cause or default.

Verification and Certification of Debarment Status
☐ Presently debarred, suspended, or excluded per the above criteria.
☐ Not presently debarred, suspended or excluded per the above criteria.

5. REQUIRED SUBMITTALS (SUBMIT WITH BID)

The following documents shall be included with your Bid submittal:

5.1 LCCC “BID SUBMITTAL & PRICING DOCUMENT
5.2 Bid bond or Bid security
5.3 Acknowledgement of any issued Addendums.
5.4 CSI Division Assignment Schedule.
5.5 A list of substitutions, clarifications, qualifications, assumptions, or exceptions (if applicable).
5.6 Residency Certification.
5.7 OSHA construction Training Certification: Ten (10) hour card for project manager or equivalent.
5.8 List of subcontractors and suppliers.
6. **BID DOCUMENT CHECKLIST**

- LCCC “**BID SUBMITTAL & PRICING DOCUMENT**” completed, signed in ink and submitted.
- Bid Bond completed and submitted.
- Acknowledged any issued addendum(s) and submitted.
- CSI Division Assignment Schedule completed and submitted.
- A listing of substitutions, qualifications, exclusions, exceptions and/or clarifications, submitted on a company letterhead.
- Residency Certification submitted.
- OSHA ten (10) hour card certification.

7. **APPENDIX – BID ATTACHMENTS**

The following documents are attached hereto and incorporated by reference and shall become a part and condition of this certain Bid.

- 7.1 Exhibit B: LCCC Insurance Requirements, 2 pages.
- 7.2 Exhibit C: Architect's Project Manual and Specifications
- 7.3 Exhibit D: Architect's Drawings Package
- 7.4 Exhibit E: CSI Division Assignment Schedule.

8. **POST-BID SUBMITTALS**

The undersigned also agrees to furnish the following post-bid submittals to LCCC within ten (10) days after Notice of Award:

- 8.1 Performance and Payment Bond
- 8.2 Certificate of Liability Insurance
- 8.3 Construction Schedule
- 8.4 Schedule of Values

9. **ADDENDA ACKNOWLEDGEMENT**

9.1 All IFB Addenda must be acknowledged in writing and submitted with Bid. Confirmation and receipt of all issued Addenda is the responsibility of each prospective firm to verify. Verification can be obtained by contacting the LCCC Purchasing Office at (307) 778-1280 or via e-mail at: jspezzano@lccc.wy.edu

**Bid No.:** IFB-17176

**Project Description:** Science Lab Renovation

I, the undersigned, hereby acknowledge receipt of the following addenda for LCCC Bid No IFB-17176:

Addendum No._____; Addendum No._____; Addendum No._____; Addendum No._____

Invitation to Bid Document #00-501

Bid No. IFB-17176

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10. **SIGNATURE PAGE**

10.1 Signature page must be completed in its’ entirety and submitted with Bid Document package.

10.2 Signature page must be signed by firm’s authorized agent, failure to do so will result in rejection of said bid as being unacceptable and non-responsive.

The undersigned, as an authorized agent for the Firm named below, acknowledges that he/she has examined, read, and understands this Request for Bid with its’ incorporated or related documents, and hereby offers to furnish all labor, materials, equipment, services, and information necessary to comply with the requirements, terms, specifications, conditions, and provisions set forth herein.

Authorized Signature __________________________ Printed Name __________________________

Title __________________________ Name of Firm __________________________

Mailing Address __________________________ City, State, Zip __________________________

Phone # __________________________ Fax # __________________________

E-mail address __________________________

Date: __________________________

**Bidder must return this entire “BID SUBMITTAL & PRICING DOCUMENT”, along with each document described in Article 6 above titled Bid Document Checklist.**

END OF SECTION THREE
EXHIBIT B

INSURANCE REQUIREMENTS

CERTIFICATE OF LIABILITY INSURANCE

A. Insurance Coverage/Limits:

Contractor and each of its subcontractors hereunder, if any, shall at its own expense, obtain insurance as provided below from reliable insurance companies acceptable to Laramie County Community College (LCCC) and authorized to do business in the State of Wyoming, in which the Work is to be performed, with limits as specified in U.S. currency or equivalent. Such insurance shall be in force at the time the Work is commenced and shall remain in force for the duration of this Contract/Agreement, unless a later date is specified below.

a. **Workers’ Compensation and Employer’s Liability Insurance:** Workers’ Compensation insurance or its’ equivalent (including Occupational Disease coverage) as required by law for all employees, agents, and subcontractors. Employer’s Liability Insurance (including Occupational Disease coverage) in the amount of **$1,000,000.00 per accident**. Such insurance shall provide coverage in the location in which the work is performed and the location in which the Contractor is domiciled. The Contractor expressly agrees to comply with all provisions of the Workers’ Compensation Laws of the state(s) or country wherein said work is being performed.

b. **General Liability Insurance:** Commercial General Liability insurance covering all operations by or on behalf of Contractor against claims for bodily injury (including mental injury, mental anguish, and death) and property damage (including loss of use). The Commercial General Liability policy will include limits as follows:

   i. General Aggregate $1,000,000.00
   ii. Products and Completed Operations $1,000,000.00
   iii. Personal Injury and Advertising Injury $1,000,000.00
   iv. Each Occurrence $1,000,000.00
   v. Damage to Premises Rented $100,000.00
   vi. Medical Expense $5,000.00

   If the policy is written on a claims-made basis, the Contractor will include an automatic extended reporting period of at least five (5) years past the expiration date of the policy.

c. **Automobile Liability Insurance:** Automobile Liability insurance against claims of bodily injury (including death) and property damage (including loss of use) covering all owned, rented, leased, non-owned, and hired vehicles used in the performance of the Work, with a minimum
limit of $1,000,000.00 per accident for bodily injury and property damage combined and containing appropriate uninsured motorist and No-Fault insurance provision wherever applicable.

d. Excess Insurance: Excess (or Umbrella) Liability insurance with a minimum limit of $2,000,000.00 per occurrence/$2,000,000.00 annual aggregate. This insurance shall provide coverage in excess of the underlying primary liability limits, terms, and conditions for each category of liability insurance in the foregoing subsections a, b, and c. This insurance shall be written on a following form basis of underlying coverage, and the aggregate limits, if any, shall apply separately to each annual policy period. If this insurance is written on a claims-made policy form, then the policy shall be endorsed to include an automatic extended period of at least five (5) years.

B. Policy Requirements

a. Certificate Proof: Prior to the commencement of the respective Contract and/or Agreement, the successful Contractor shall deliver certificates of insurance evidencing such policy or polices to the LCCC Director of Procurement and Contracting specific “Certification” proof shall include:

i. Certificate of Liability insurance form.

ii. State of Wyoming, Department of Employment “Unemployment Insurance Certificate of Good Standing”.

iii. State of Wyoming, Department of Employment “Workers’ Compensation Certificate of Good Standing”.

“Certification” may be mailed, faxed or emailed to:
- E-mail: jspezzano@lccc.wy.edu
- Fax: 307-778-4300 (Attn: Director, Procurement and Contracting)
- Mail: 1400 East College Drive, Cheyenne, WY 82007 (Attn: Director, Procurement and Contracting)

b. Additional Insured Clause: LCCC shall be listed as the “Additional Insured” on all policies, but only with respect to operations of successful firm under the respective Contract.

c. Notice of Cancellation: Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be canceled or non-renewed expect after thirty (30) days prior written notice has been given to LCCC, expect when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice shall be sent directly to LCCC, Director of Procurement and Contracting.
**Exhibit E to IFB-17176/ CSI Division Work Assignment Schedule**

Complete the information requested below per the applicable CSI Division required for this Bid. Any portion of the form not filled in will be considered non-conforming and an irregularity, and may affect the award of this Bid. EXCEPTION: Any Division not applicable to this Bid may be left void or blank.

**PROJECT:** Science Lab Renovation  
**DATE:** April 25, 2017

**ARCHITECT/ENGINEER:** Tobin & Associates, P.C.

**CONTRACTOR NAME:** ________________________________

Do not combine categories of work; list separately per respective Construction Specification Institute (CSI) Division.

<table>
<thead>
<tr>
<th>WORK DESCRIPTION CSI Division</th>
<th>PRIME, SUBCONTRACTOR, SUPPLIER Name, City and State</th>
<th><strong>WORK LEVEL SP or Tier 1</strong></th>
<th>% of BID VALUE</th>
<th>BID AMOUNT</th>
<th>TRADES Performed by Division</th>
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<tbody>
<tr>
<td>Div 01: General Requirements</td>
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<td>Div 02: Existing Conditions</td>
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<td>Div 03: Concrete</td>
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<td>Div 04: Masonry</td>
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<td>Div 05: Metals</td>
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<td>WORK DESCRIPTION CSI Division</td>
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<td>TRADES Performed by Division</td>
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<td>Div 06: Wood, Plastics, Composites</td>
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<td>Div 07: Thermal &amp; Moisture Protection</td>
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<td>Div 08: Openings</td>
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<td>Div 09: Finishes</td>
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<td>Div 10: Specialities</td>
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<td>Div 11: Equipment</td>
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<td>Div 12: Furnishings</td>
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<td>Div 13: Special Construction</td>
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<td>Div 21: Fire Suppression</td>
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<td>WORK DESCRIPTION CSI Division</td>
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<td>TRADES Performed by Division</td>
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<td>Div 22: Plumbing</td>
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<td>Div 23: HVAC</td>
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<td>Div 25: Integrated Automation</td>
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<td>Div 26: Electrical</td>
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<td>Div 27: Communication</td>
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<td>Div 28: Electronic Safety &amp; Security</td>
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<td>Div 31: Earthwork</td>
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<td>Div 32: Exterior Improvements</td>
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<td>Div 33: Utilities</td>
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<td>Other – Please specify</td>
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</table>
1. Fill in information for each Division of work to be completed under this Bid, even if, the work is self-performed by the General Contractor.

2. ** Work Level Descriptions: **SP** = Self performed by Prime/General Contractor; **Tier 1**: Subcontractor to Prime/GC;

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Totals of: % of Bid Value and Bid Amount</strong> (% must add up to 100 and Bid must equal RFB-17144 Bid Value)</td>
<td>$</td>
<td>Trade Performed by Division</td>
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</tbody>
</table>
00 3113 - INFORMATION AVAILABLE TO BIDDERS

1. TENTATIVE SCHEDULE OF EVENTS

   May be changed by addenda or mutual agreement between Owner and successful Bidder prior to signing Contract, Change Order after signing of Contract or other legitimate reason.

   a. First Advertisement               March 31, 2017
   b. Second Advertisement              April 3, 2017
   c. Mandatory Pre-Bid Conference      April 13, 2017 10:00 AM
   d. Last day of Questions             April 19, 2017 5:00 PM
   e. Date of Last Addendum             April 21, 2017
   f. Bid Opening                       April 25, 2017 3:00PM
   g. Notice of Award issued            May 1, 2017
   h. Notice to Proceed with Submittals May 10, 2017
   i. Notice to Proceed with Construction May 15, 2017
   j. Substantial Completion Due       August 1, 2017

2. FACILITY ACCESS FOR CONSTRUCTION

   The Contractor shall coordinate with college officials for functions during the summer months to avoid disruptions to planned events and uses during times of construction.

   The Contractor shall have access to the building on weekends, but shall still coordinate with the college officials for possible college related functions.

3. CAMPUS EVENT SCHEDULE

   The Contractor shall coordinate with college officials for other functions scheduled during the summer months to avoid disruptions to planned events and uses during times of construction.

   a. No Work on US Air Force Thunder Bird practice day. 07/25/2017
   b. No Work on US Air Force Thunder Bird air show day. 07/26/2017
**SECTION 01 1000 - SUMMARY**

**PART 1 GENERAL**

1.01 PROJECT
   A. Project Name: LCCC Science Room Renovations
   B. Owner's Name: Laramie County Community College.
   C. Architect's Name: Tobin & Associates P.C.
   D. The Project consists of the alteration of an approximately 805 square feet, science classroom.

1.02 CONTRACT DESCRIPTION
   A. Contract Type: A single prime contract based on a Stipulated Price as described in the Invitation for Bid - Construction Services.

1.03 DESCRIPTION OF ALTERATIONS WORK
   A. Scope of demolition and removal work is shown on Drawings.
   B. Scope of alterations work is shown on Drawings.

1.04 WORK BY OWNER
   A. Owner will supply the following for installation by Contractor:
      1. Markerboard.
      2. Smart Board.

1.05 OWNER OCCUPANCY
   A. Owner intends to occupy adjacent portions of the existing building during the entire construction period.
   B. Owner intends to occupy the Project upon Substantial Completion.
   C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
   D. Schedule the Work to accommodate Owner occupancy.

1.06 CONTRACTOR USE OF SITE AND PREMISES
   A. Arrange use of site and premises to allow:
      1. Owner occupancy.
      2. Use of site and premises by the public.
   B. Provide access to and from site as required by law and by Owner:
      1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
   C. Utility Outages and Shutdown:
      1. Limit disruption of utility services to hours the building is unoccupied.
      2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
      3. Prevent accidental disruption of utility services to other facilities.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Procedures for preparation and submittal of applications for progress payments.
B. Documentation of changes in Contract Sum and Contract Time.
C. Change procedures.
D. Procedures for preparation and submittal of application for final payment.

1.02 SCHEDULE OF VALUES

A. Form to be used: AIA G703.
B. Forms filled out by hand will not be accepted.
C. Submit Schedule of Values in PDF document within 10 days after date of Owner-Contractor Agreement.
D. Identify major categories of work and related monetary values.
E. Revise schedule to list approved Change Orders, with each Application For Payment.

1.03 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.
B. Form to be used: AIA G702 and G703.
C. Forms filled out by hand will not be accepted.
D. For each item, provide a column for listing each of the following:
   1. Item Number.
   2. Description of work.
   4. Previous Applications.
   5. Work in Place and Stored Materials under this Application.
   6. Total Completed and Stored to Date of Application.
   7. Percentage of Completion.
   9. Retainage.
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 electronic PDF copies of each Application for Payment.
I. Include the following with the application:
   1. Affidavits attesting to off-site stored products.

1.04 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 the 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. 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. Contractor shall prepare and submit a fixed price quotation within 10 days.
D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.

E. 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 requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.

F. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

G. 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.

H. 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.

1.05 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 7000.
   2. All punch list items have been completed.

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

END OF SECTION
SECTION 01 2300 - ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Description of Alternates.

1.02 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.

1.03 SCHEDULE OF ALTERNATES
   A. Alternate No. 1 - Fluid Applied Flooring Overlay:
      1. Base Bid Item: Section 09 6700 and Drawing number A201 including patching of existing fluid applied flooring.
      2. Alternate Item: Section 09 6700 and Drawing number A201 including fluid applied flooring overlay.
   B. Alternate No. 2 - Wood Laboratory Casework:
      1. Base Bid Item: Section 06 4100 and Drawing numbers A201, A401, A402 including relocation of existing casework and new plastic laminate faced architectural wood casework.
      2. Alternate Item: Section 12 3553.19 and Drawing numbers A201, A401, A402 including new wood laboratory casework in lieu of new plastic laminate faced architectural wood casework.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Electronic document submittal.
   B. Preconstruction meeting.
   C. Progress meetings.
   D. Construction progress schedule.
   E. Request for Information.
   F. Submittals for review, information, and project closeout.
   G. Submittal procedures.

1.02 RELATED REQUIREMENTS
   A. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
   B. Section 01 7800 - Closeout Submittals: Project record documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

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

3.02 PRECONSTRUCTION MEETING
   A. Schedule meeting after Notice to Proceed.
   B. Attendance Required:
      1. Owner.
      3. Contractor.
      4. Major Subcontractors.
      5. Major Design Consultants.
   C. Agenda:
      1. Distribution of Contract Documents.
      2. Submission of list of Subcontractors, schedule of values, and progress schedule.
      3. Designation of personnel representing the parties to Contract, Owner, General Contractor and Architect.
      4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, requests for information, proposal requests, Change Orders, and Contract closeout procedures.
      5. Scheduling.
      6. Use of premises by Owner and Contractor.
   D. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.
3.03 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum weekly intervals.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required:
   1. Contractor.
   2. Owner.
   3. Architect.
   4. Contractor’s Superintendent.
   5. Major Subcontractors and Design Consultants as appropriate to address agenda topics.

D. 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. Maintenance of quality and work standards.
   11. Effect of proposed changes on progress schedule and coordination.
   12. Other business relating to Work.

E. Record minutes and distribute copies within two days after meeting to participants, with PDF copies to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after date of the Agreement, submit preliminary schedule.

B. If preliminary schedule requires revision after review, submit revised schedule within 3 days.

C. Submit updated schedule with each Application for Payment.

3.05 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

C. Samples will be reviewed only for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below.

3.06 SUBMITTALS FOR INFORMATION

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

3.07 SUBMITTALS FOR PROJECT CLOSEOUT
A. Submit Correction Punch List for Substantial Completion.
B. Submit Final Correction Punch List for Substantial Completion.
C. When the following are specified in individual sections, submit them at project closeout:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   5. Other types as indicated.
D. Submit for Owner's benefit during and after project completion.

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

3.09 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. Use of reproductions of the Contract Documents in digital data format may be allowed for creation of shop drawings. Obtain files from Architect via execution of Digital Model Sharing Agreement. Sample of agreement form follows this Section.
   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.
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. Schedule submittals to expedite the Project, and coordinate submission of related items.
G. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
I. Provide space for Contractor and Architect review stamps.
J. When revised for resubmission, identify all changes made since previous submission.
K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
L. Submittals not requested will not be recognized or processed.

END OF SECTION
AGREEMENT & RELEASE REGARDING DIGITAL MODEL SHARING & USE OF ELECTRONIC INSTRUMENTS OF SERVICE PREPARED BY TOBIN & ASSOCIATES, P.C.

LCCC ACC Classroom Addition
Laramie, Wyoming

TERMS & CONDITIONS

In connection with the project identified above (hereinafter "Project") for which Tobin & Associates, P.C. ("Architect") has been retained to provide Architectural services, Recipient has requested certain Instruments of Service prepared by the Architect electronic modeling format (Autodesk AutoCAD file format) hereinafter referred to as "Electronic Model and Document."

In consideration of Tobin & Associates, P.C.’s agreement to release Electronic Documents, the Recipient agrees as follows:

____________________________ (hereinafter "Recipient") understands and acknowledges that the Electronic Model and Documents prepared for the Project were not created or intended for direct use as construction documentation by the Recipient, its sub-Recipients or third parties, and that after the Electronic Model and Documents are provided they can become digitally corrupted without detection, can be modified without the knowledge of the Architect and/or its consultants, may not be readable by Recipient, its sub-Recipients or by third parties due to file format incompatibilities, and may be modified by the Architect, its consultants or others after the Electronic Model and Documents are transferred, any of which circumstances could cause damage or loss to Recipient. Any further conversion of the format by the Recipient is solely the responsibility of the Recipient. The conversion of Electronic Model and Documents from the machine-readable format used by the Architect to some other format may introduce errors of other inaccuracies. Recipient understands and acknowledges that these risks are inherent with any use of the Electronic Model and Documents and that the use of the Electronic Model and Documents may not result in the detection of all potential conflicts between elements during actual construction of a project and may not accurately reflect quantities, surface areas or volumes necessary to complete or estimate the cost of the Work.

The Architect does not warrant that the information contained in the Electronic model and Documents is free from errors or omissions, or free from damage or deletion in part or in whole. The Recipient may not rely on the accuracy or completeness of the Electronic Documents and/or Electronic Model. The Recipient accepts all responsibility for any errors or inaccuracies and releases the Architect from any liability or claims for recovery of damages or expenses arising as the result of such error or inaccuracies. Recipient agrees that dimensions may not be scaled in the Electronic Model and Documents and that written dimension on the hard-copy Contract Documents take precedence.

Recipient acknowledges that the Electronic Model and Documents are a work in progress for the above-described Project. The signed and sealed original plans, specifications and other documents constitute the Contract Documents for the Project. The Electronic Model and Documents are not Contract Documents, and will not be signed or sealed by Tobin & Associates, P.C. The Recipient shall be obligated to remove the Architect's and/or the Architect's consultant's title blocks and all digital seals from the Electronic Documents. Architect cannot verify that the Electronic Model and Documents accurately or completely reflect field conditions. The Recipient and each other user must satisfy themselves as to the level of accuracy and completeness of the Electronic Model and Documents for their needs. In addition, the Recipient understands that the changes made during design, bidding, negotiation and construction may not be incorporated into the Electronic Model and Documents.

Recipient acknowledges that the transfer of Electronic Model and Documents shall not constitute the sale of goods; and, Owner, Architect and its consultants make NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE, INCLUDING "SPEARIN" TYPE WARRANTIES, IN CONNECTION WITH THE SERVICE OF PROVIDING ELECTRONIC MODEL AND DOCUMENTS, OR THAT THE ELECTRONIC MODEL AND DOCUMENTS WILL BE USEABLE OR ACCURATE, WHICH WARRANTIES AND REPRESENTATIONS ARE EXPRESSLY DISCLAIMED.

By acceptance of the Electronic Model and Documents, Recipient agrees not to sue, and will hold harmless Architect and each of its partners, officers, shareholders, directors, employees, and consultants from any and all costs (including reasonable attorneys' fees), claims or causes of action be it tort, breach of contract or otherwise arising as the result of either: 1) Recipient's failure to comply with any of the requirements of this Agreement or 2) Defects, errors, or omissions in the Electronic Model and Documents or the information contained therein and, specifically, Recipient's use of the Electronic Model. Recipients use of the Electronic Model and Documents is at the Recipient's sole risk.

Signatures on following page

AGREEMENT ACCEPTANCE
Signature of this Agreement expressly certifies to Tobin & Associates, P.C. that the person(s) signing below is/are authorized by the Recipient to accept and commit to the terms and conditions included in this Agreement and Release on behalf of the Recipient.

Agreed to and accepted by:

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*(If address is a P.O. Box Number, include actual building location address)*
SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. References and standards.
   B. Control of installation.
   C. Tolerances.
   D. Defect Assessment.

1.02 RELATED REQUIREMENTS
   A. Section 01 3000 - Administrative Requirements: Submittal procedures.
   B. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.03 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. Conform to reference standard of date of issue current on date specified in the individual specification sections, except where a specific date is established by applicable code.
   D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

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.

3.02 TOLERANCES
   A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
   B. Comply with manufacturers’ tolerances. Should manufacturers’ tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
   C. Adjust products to appropriate dimensions; position before securing products in place.
3.03 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not conforming to specified requirements.
B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION
SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES
- Temporary utilities.
- Temporary sanitary facilities.
- Security requirements.
- Vehicular access and parking.
- Waste removal facilities and services.

1.02 TEMPORARY UTILITIES
- Owner will provide the following:
  1. Electrical power, consisting of connection to existing facilities.
  2. Water supply, consisting of connection to existing facilities.
- Existing facilities may be used.
- New permanent facilities may be used.

1.03 TEMPORARY SANITARY FACILITIES
- Use of existing facilities is permitted.

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

1.05 VEHICULAR ACCESS AND PARKING
- Existing on-site roads may be used for construction traffic.
- Existing parking areas, where designated by Owner, may be used for construction parking.

1.06 WASTE REMOVAL
- Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- Provide containers with lids. Remove trash from site periodically.
- 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.

1.07 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS
- Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- Clean and repair damage caused by installation or use of temporary work.
- Restore existing facilities used during construction to original condition.
- Restore new permanent facilities used during construction to specified condition.

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

END OF SECTION
SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. General product requirements.
   B. Re-use of existing products.
   C. Transportation, handling, storage and protection.
   D. Product option requirements.
   E. Substitution limitations and procedures.
   F. Procedures for Owner-supplied products.

1.02 RELATED REQUIREMENTS
   A. Section 01 4000 - Quality Requirements: Product quality monitoring.

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

PART 2 PRODUCTS
2.01 EXISTING PRODUCTS
   A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
   B. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
   C. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is noted on Drawings.

2.02 NEW PRODUCTS
   A. Provide new products unless specifically required or permitted by the Contract Documents.
   B. Provide interchangeable components of the same manufacture for components being replaced.

2.03 PRODUCT OPTIONS
   A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
   B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
   C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

PART 3 EXECUTION
3.01 SUBSTITUTION PROCEDURES
   A. Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period.
B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.

C. A request for substitution constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
   2. Agrees to provide the same warranty for the substitution as for the specified product.
   3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
   4. Waives claims for additional costs or time extension that may subsequently become apparent.

D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

E. Substitution Submittal Procedure:
   1. Submit substitution requests by completing the appropriate form shown after this section.
   2. Submit PDF copies of request for substitution for consideration. Limit each request to one proposed substitution.
   3. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
   4. Architect will notify Contractor in writing of decision to accept or reject request.

3.02 OWNER-SUPPLIED PRODUCTS

A. Owner's Responsibilities:
   1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
   2. Arrange and pay for product delivery to site.
   3. On delivery, inspect products jointly with Contractor.
   4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
   5. Arrange for manufacturers' warranties, inspections, and service.

B. Contractor's Responsibilities:
   1. Review Owner reviewed shop drawings, product data, and samples.
   2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
   3. Handle, store, install and finish products.
   4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.

B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

D. Transport and handle products in accordance with manufacturer's instructions.

E. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

F. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

G. Arrange for the return of packing materials, such as wood pallets, where economically feasible.
3.04 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers’ instructions.

C. Store with seals and labels intact and legible.

D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

E. For exterior storage of fabricated products, place on sloped supports above ground.

F. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.

G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

H. Comply with manufacturer's warranty conditions, if any.

I. Do not store products directly on the ground.

J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

K. Prevent contact with material that may cause corrosion, discoloration, or staining.

L. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

M. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION
## Pre-Bid Request for Substitution

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<td>Product Data</td>
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### Modifications

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<th>Will changes be required to the building design or drawing dimensions in order to properly install the proposed substitution?</th>
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<th>Will the undersigned pay for changes to the building design, including engineering and drawing costs, caused by the requested substitution?</th>
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<th>Does the manufacturer’s warranty of the proposed substitution differ from that specified?</th>
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<th>I/we have investigated the proposed substitution and:</th>
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<tr>
<td>Manufacturer certifies that the proposed substitution is appropriate for the proposed use and is equal or better than the specified product.</td>
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<tr>
<td>Product Supplier certifies that the proposed substitution is appropriate for the proposed use and is equal or better that the specified product.</td>
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<tr>
<td>Product Installer certifies that the proposed substitution is appropriate for the proposed use and is equal or better that the specified product.</td>
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## Post-Bid Request for Substitution

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I/we have investigated the proposed substitution and:

- [ ] Believe that it is equal or superior in all respects to the original specified product.
- [ ] Will provide the same warranty as required
- [ ] Will pay redesign and special installation costs caused by the use of this product.
- [ ] Will pay additional costs to other contractors caused by the substitution.
- [ ] Will coordinate the incorporation of the proposed substitution into the Work.
- [ ] Will modify other parts of the Work as may be necessary to complete the Work.

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SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.
B. Cutting and patching.
C. Cleaning and protection.
D. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.02 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy.
B. Section 01 3000 - Administrative Requirements: Submittals procedures.
C. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. 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.
   5. Work of Owner or separate Contractor.
C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.04 PROJECT CONDITIONS

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into the mechanical duct system or other building areas.

1.05 COORDINATION

A. See Section 01 1000 for occupancy-related requirements.
B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
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 shown for pipes 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, conceal pipes and conduit 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.
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 6000 - 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 misfabrication.
E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

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

3.03  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.

3.04  CUTTING AND PATCHING
A. Whenever possible, execute the work by methods that avoid cutting or patching.
B. 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-conforming work.

C. 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.

D. Employ original installer to perform cutting for moisture resistant elements and sight exposed surfaces.

E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

F. Restore work with new products in accordance with requirements of Contract Documents.

G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. 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.

I. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.05 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

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

3.06 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. Protect finished floors and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.07 ADJUSTING

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

3.08 FINAL CLEANING

A. Use cleaning materials that are nonhazardous.

B. 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.

C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
E. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.09 CLOSEOUT PROCEDURES
A. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.
B. 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.
C. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
D. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.
E. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

END OF SECTION
SECTION 01 7800 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Project Record Documents.
   B. Warranties and bonds.

1.02 RELATED REQUIREMENTS
   A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
   B. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
   C. 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. Warranties and Bonds:
      1. Make submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
      2. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS
   A. Maintain on site one set of the following record documents; record actual revisions to the Work:
      1. Drawings.
      2. Specifications.
      3. Addenda.
      4. Change Orders and other modifications to the Contract.
      5. Reviewed shop drawings, product data, and samples.
   B. Ensure entries are complete and accurate, enabling future reference by Owner.
   C. Store record documents separate from documents used for construction.
   D. Record information concurrent with construction progress.
   E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
      1. Manufacturer's name and product model and number.
      2. Product substitutions or alternates utilized.
      3. Changes made by Addenda and modifications.
   F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
      1. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
      2. Field changes of dimension and detail.
      3. Details not on original Contract drawings.

3.02 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.
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
SECTION 02 4100 - DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS
   A. Section 01 1000 - Summary: Limitations on Contractor’s use of site and premises.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS
   A. Do not begin removal until receipt of notification to proceed from Owner.
   B. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB’s, and mercury.

3.02 SELECTIVE DEMOLITION FOR 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 shown.
      2. Report discrepancies to Architect before disturbing existing installation.
      3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
   B. Remove existing work as indicated and as required to accomplish new work.
      1. Remove items indicated on Drawings.
      2. Salvage items for reuse or return to Owner as noted on Drawings.
   C. Services (Including but not limited to HVAC, Plumbing, Electrical, and Telecommunications):
      Remove existing systems and equipment as indicated.
      1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
      2. Verify that abandoned services serve only abandoned facilities before removal.
      3. Remove abandoned pipe, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
   D. Protect existing work to remain.
      1. Perform cutting to accomplish removals neatly and as specified for cutting new work.
      2. Repair adjacent construction and finishes damaged during removal work.
      3. Patch as specified for patching new work.

3.03 DEBRIS AND WASTE REMOVAL
   A. Remove debris, junk, and trash from site.
   B. Leave site in clean condition, ready for subsequent work.
   C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Floors and slabs on grade.
   B. Concrete reinforcement.
   C. Concrete curing.

1.02 REFERENCE STANDARDS
   B. ACI 301 - Specifications for Structural Concrete; 2010 (Errata 2012).
   C. ACI 302.1R - Guide for Concrete Floor and Slab Construction; 2004 (Errata 2007).
   E. ACI 308R - Guide to Curing Concrete; 2001 (Reapproved 2008).
   F. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2014 (Errata 2016).
   M. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2015.

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Mix Design: Submit proposed concrete mix design.
      1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
      2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.

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

PART 2 PRODUCTS

2.01 REINFORCEMENT
   A. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi).
      1. Type: Deformed billet-steel bars.
      2. Finish: Unfinished, unless otherwise indicated.
2.02 CONCRETE MATERIALS
   A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
   C. Fly Ash: ASTM C618, Class C or F.
   D. Water: Clean and not detrimental to concrete.

2.03 ADMIXTURES
   A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
   B. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.

2.04 ACCESSORY MATERIALS
   A. Non-Shrink Epoxy Grout: Moisture-insensitive, two-part; consisting of epoxy resin, non-metallic aggregate, and activator.
      1. Composition: High solids content material exhibiting positive expansion when tested in accordance with ASTM C827/C827M.
         b. Minimum Height Change: Plus 1 percent.
      2. Minimum Compressive Strength at 7 days, ASTM C579: 14,000 pounds per square inch.
      3. Manufacturers:
         c. Substitutions: See Section 01 6000 - Product Requirements.

2.05 BONDING AND JOINTING PRODUCTS
   A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.

2.06 CURING MATERIALS
      1. Manufacturers:
         e. Substitutions: See Section 01 6000 - Product Requirements.
   B. Water: Potable, not detrimental to concrete.

2.07 CONCRETE MIX DESIGN
   A. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
   B. Normal Weight Concrete:
      1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 4,000 pounds per square inch.
      2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.

2.08 MIXING
   A. Transit Mixers: Comply with ASTM C94/C94M.
PART 3 EXECUTION
3.01 PREPARATION
   A. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
   B. In locations where new concrete is dowelled to existing work, drill holes in existing concrete, remove debris from hole, insert steel dowels and pack solid with non-shrink grout.
3.02 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS
   A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
3.03 PLACING CONCRETE
   A. Place concrete in accordance with ACI 304R.
   B. Place concrete for floor slabs in accordance with ACI 302.1R.
   C. Finish floors level, flat and flush with adjacent existing slab.
3.04 FLOOR FLATNESS AND LEVELNESS TOLERANCES
   A. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified.
3.05 CONCRETE FINISHING
   A. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
      1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include seamless flooring.
3.06 CURING AND PROTECTION
   A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
   B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
   C. Surfaces Not in Contact with Forms:
      1. Slabs and Floors To Receive Fluid-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable for a material bond with fluid-applied flooring manufacturers. If such materials must be used, either obtain the approval of the flooring manufacturer prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction. Otherwise moisture curing techniques may be used.
      2. Curing: Begin after initial set but before surface is dry.
         a. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.
3.07 PROTECTION
   A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION
SECTION 06 1000 - ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Concealed wood blocking, nailers, and supports.
B. Miscellaneous wood nailers, furring, and grounds.

1.02 REFERENCE STANDARDS
A. PS 1 - Structural Plywood; 2009.

PART 2 PRODUCTS

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

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS
A. Sizes: Nominal sizes as indicated on drawings, or 2 x 4 and 2 x 6 inches nominal sizes, S4S.
B. Moisture Content: S-dry or MC19.
C. Miscellaneous Blocking, Nailers and Supports:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.

2.03 CONSTRUCTION PANELS
A. Support Applications:
   1. Plywood Exposed to View But Not Exposed to Weather: PS 1, A-D, or better.
   2. Other Locations: PS 1, C-D Plugged or better.

2.04 ACCESSORIES
A. Fasteners and Anchors:
   1. Drywall Screws: Bugle head, hardened steel, power driven type, length suitable for penetration of substrate.
B. Construction Adhesives:
   1. Products:
      c. Substitutions: See Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL
A. Select material sizes to minimize waste.
B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
3.02 BLOCKING, NAILERS, AND SUPPORTS
   A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
   B. In walls, provide blocking attached to studs as backing and support for wall-mounted items.
   C. Provide the following specific non-structural framing and blocking:
      1. Cabinets and shelf supports.
      2. Wall brackets.
      3. Chalkboards and markerboards.
      4. Joints of rigid wall coverings that occur between studs.

3.03 INSTALLATION OF CONSTRUCTION PANELS
   A. Construction panels, attached to existing gypsum wall finish, as a continuous backing behind wall cabinets may be provided in lieu of concealed blocking.

END OF SECTION
SECTION 06 4100 - PLASTIC LAMINATE FACED ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Specially fabricated cabinet units.
   B. Cabinet hardware.

1.02 RELATED REQUIREMENTS
   A. Section 06 1000 - Rough Carpentry: Support framing, grounds, and concealed blocking.
   B. Section 12 3600 - Countertops.

1.03 REFERENCE STANDARDS
   A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
   B. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.
   C. ANSI A135.4 - American National Standard for Basic Hardboard; 2012.
   F. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
   G. BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.9).
   H. NEMA LD 3 - High-Pressure Decorative Laminates; National Electrical Manufacturers Association; 2005.
   I. PS 1 - Structural Plywood; 2009.

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
   C. Product Data: Provide data for hardware accessories.
   D. Samples: Submit actual sample items of proposed pulls, hinges, and shelf standards, demonstrating hardware design, quality, and finish.

1.05 QUALITY ASSURANCE
   A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum seven years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Protect units from moisture damage.

1.07 FIELD CONDITIONS
   A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

PART 2 PRODUCTS

2.01 CABINETS
   A. Quality Grade: Unless otherwise indicated provide products of quality specified by AWI/AWMAC/WI (AWS) for Custom Grade.
   B. Cabinets at all locations:
      1. Finish - Exposed Exterior Surfaces: High pressure decorative laminate (HPDL).
4. Door and Drawer Front Edge Profiles: PVC extrusion.
5. Casework Construction Type: Type A - Frameless.
6. Interface Style for Cabinet and Door: Style 1 - Overlay; reveal overlay.
7. Adjustable Shelf Loading: 50 lbs. per sq. ft.
   a. Deflection: L/144.
8. Drawer Construction Technique: Dado joints; draw box front with lock rabbet joint and separate front face.
9. Drawer Box: Thermally fused laminate on fiberboard.
10. Shelf Quantity: 1 per 10 to 14 inches of vertical case space for base, upper and full height cabinets, unless shown otherwise on Drawings.

2.02 SHEET MATERIALS
A. Softwood Plywood: Any face species, veneer core; PS 1 Grade A-B; waterproof glue.
B. Particleboard: ANSI A208.1; Industrial Grade (M-3); composed of wood chips, sawdust, or flakes of medium density, made with waterproof resin binders; of grade to suit application; sanded faces.
C. Fiberboard: ANSI A208.2; composed of cellulosic fibers combined with synthetic resin and joined together under heat and pressure. 49.0 lbs./cu.ft. medium density.
D. Hardboard: ANSI A135.4; Pressed wood fiber with resin binder, Class 1 - Tempered, 1/4 inch thick, smooth two sides (S2S).

2.03 LAMINATE MATERIALS
A. Manufacturers:
   5. Substitutions: See Section 01 6000 - Product Requirements.
B. Thermally Fused Laminate (TFL): NEMA LD 3, Type VGL laminate panels.
C. High Pressure Decorative Laminate (HPDL): NEMA LD 3.
D. Provide specific types as follows:
   1. Horizontal Surfaces: HGS, 0.048 inch nominal thickness, color as selected, finish as selected.
   2. Vertical Surfaces: VGS, 0.028 inch nominal thickness, color as selected, finish as selected.
   3. Laminate Backer: BKL, 0.020 inch nominal thickness, undecorated; for application to concealed backside of panels faced with high pressure decorative laminate.

2.04 COUNTERTOPS
A. Countertops: As specified in Section 12 3600.

2.05 ACCESSORIES
A. Adhesive: Type recommended by AWI/AWMAC to suit application.
B. Sealant: As per Section 07 9200 Joint Sealants.
C. Plastic Edge Banding: Extruded PVC, 3 mm flat shaped with radius edge; smooth finish; of width to match component thickness.
   1. Color: As selected by Architect from manufacturer's standard range.
   2. Use at exposed door, drawer front and shelf edges.
D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.
E. Concealed Joint Fasteners: Threaded steel.
2.06 HARDWARE

A. Hardware: BHMA A156.9, types as indicated for quality grade specified.

B. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, satin chrome finish, for nominal 1 inch spacing adjustments.

C. Drawer and Door Pulls: "U" shaped wire pull, steel with satin finish, 4 inch centers.

D. Door Restraints: Curved lever restraint with mounting plates allowing various degrees of swing.

E. Catches: Magnetic with adjustable body, minimum 5 pound holding force.

F. Drawer Slides: General use.
   1. Type: Full extension, captive nylon rollers.
   2. Static Load Capacity: 100 lbs.
   3. Mounting: Bottom or side.
   4. Stops: Integral type.
   5. Features: Provide self closing/stay closed type.
   7. Products:
      d. Substitutions: See Section 01 6000 - Product Requirements.

G. Drawer Slides: Paper storage, 36 to 48 inches wide.
   1. Type: Full extension, progressive opening, ball bearings.
   2. Static Load Capacity: 200 lbs.
   4. Stops: Integral type.
   5. Features: Provide soft stop type.
   7. Products:
      d. Substitutions: See Section 01 6000 - Product Requirements.

H. Hinges: five knuckle, institutional hinge with hospital tips, full overlay wrap around type, BHMA 156.9 Grade 1, steel with satin finish.
   1. Products:
      d. Substitutions: See Section 01 6000 - Product Requirements.

2.07 FABRICATION

A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.

B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.

D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners.
   1. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
E. Door Restraints: Install where swing of door will strike adjacent cabinets, countertops, walls or other building components.

**PART 3 EXECUTION**

**3.01 EXAMINATION**
A. Verify adequacy of backing and support framing.

**3.02 INSTALLATION**
A. Install work in accordance with AWI/AWMAC/WI (AWS) requirements for grade indicated.
B. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
C. Use concealed joint fasteners to align and secure adjoining cabinet units.
D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.
E. Install filler panels to close gaps at adjacent walls.
F. Secure cabinets to floor using appropriate angles and anchorages.
G. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.

**3.03 ADJUSTING**
A. Adjust moving or operating parts to function smoothly and correctly.

**3.04 CLEANING**
A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

**3.05 PROTECTION**
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**
SECTION 07 8400 - FIRESTOPPING

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Firestopping systems.

1.02 RELATED REQUIREMENTS
   A. Section 01 7000 - Execution and Closeout Requirements: Cutting and patching.

1.03 REFERENCE STANDARDS
   B. ITS (DIR) - Directory of Listed Products; current edition.

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on product characteristics, performance ratings, and limitations.
   C. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

1.05 QUALITY ASSURANCE
   A. Fire Testing: Provide firestopping assemblies of designs that provide the specified fire ratings when tested in accordance with methods indicated.
      1. Listing in UL (FRD), FM (AG), or ITS (DIR) will be considered as constituting an acceptable test report.
      2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC-ES) at www.icc-es.org will be considered as constituting an acceptable test report.
   B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years experience.

1.06 FIELD CONDITIONS
   A. Provide ventilation in areas where solvent-cured materials are being installed.

PART 2 PRODUCTS

2.01 FIRESTOPPING - GENERAL REQUIREMENTS
   A. Manufacturers:
      1. 3M Fire Protection Products: www.3m.com/firestop.
   B. Materials: Use any material meeting requirements.
   C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Type required for tested assembly design.

2.02 FIRESTOPPING ASSEMBLY REQUIREMENTS
   A. Through Penetration Firestopping: Use any system that has been tested according to ASTM E814 to have fire resistance F Rating equal to required fire rating of penetrated assembly.

2.03 FIRESTOPPING PENETRATIONS THROUGH GYPSUM BOARD WALLS
   A. Penetrations By:
      1. Uninsulated Metallic Pipe, Conduit, and Tubing:
         a. 1 Hour Construction: UL System W-L-1164; Hilti FS-ONE MAX Intumescent Firestop Sealant.
      2. Insulated Pipes:
         a. 1 Hour Construction: UL System W-L-5028; Hilti FS-ONE MAX Intumescent Firestop Sealant.
b. 1 Hour Construction: UL System W-L-5029; Hilti FS-ONE Intumescent Firestop Sealant.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify openings are ready to receive the work of this section.

3.02 PREPARATION
A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter that could adversely affect bond of firestopping material.
B. Remove incompatible materials that could adversely affect bond.
C. Install backing materials to arrest liquid material leakage.

3.03 INSTALLATION
A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
B. Do not cover installed firestopping until inspected by authorities having jurisdiction.

3.04 FIELD QUALITY CONTROL
A. Repair or replace penetration firestopping and joints at locations where inspection results indicate firestopping or joints do not meet specified requirements.

3.05 CLEANING
A. Clean adjacent surfaces of firestopping materials.

3.06 PROTECTION
A. Protect adjacent surfaces from damage by material installation.

3.07 UL SYSTEM DETAILS
A. See following pages for system details.

END OF SECTION
1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.

B. Gypsum Board* — The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening in steel stud walls is 32 in. (813 mm). Max diam of openings in wood stud walls is 14-1/2 in. (368 mm).

The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Steel Sleeve — Nom 32 in. (813 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe sleeve friction fit in nom 32 in. (813 mm) diam circular opening cut through gypsum board layers. Length of steel sleeve to be equal to thickness of wall.
3. Through-Penetrant — One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and the steel sleeve shall be min of 0 in. (point contact) to max 1-7/8 in. (48 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe or Class 50 (or heavier) ductile iron pressure pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

4. Fill, Void or Cavity Material*—Sealant — Min 5/8 in. (16 mm) and 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 or 2 hr rated walls, respectively. Min 1/2 in. (13 mm) diam bead of caulk applied to the penetrant/gypsumboard interface at the point contact location on both sides of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant  
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
### System No. W-L-5028

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<td>T Ratings — 0, 3/4 and 1 Hr (See Item 3)</td>
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<td>L Rating At Ambient — Less Than 1 CFM/sq ft</td>
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<tr>
<td>L Rating At 400 F — Less Than 1 CFM/sq ft</td>
<td>FTH Ratings — 0, 3/4 and 1 Hr (See Item 3)</td>
</tr>
<tr>
<td>L Rating At Ambient — Less Than 1 CFM/sq ft</td>
<td>L Rating At 400 F — Less Than 1 CFM/sq ft</td>
</tr>
</tbody>
</table>

#### SECTION A-A

1. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board**[*] — 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 7-1/2 in. (191 mm).

   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrants** — One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. **Steel Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. **Copper Tubing** — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
   C. **Copper Pipe** — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.

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3. Tube Insulation — Plastics+ — Min 1/2 in. (13 mm) to max 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. An annular space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the firestop system. The T, FT and FTH Ratings are 1 hr when the 1 in. (25 mm) thick tube insulation is used and 3/4 hr when the 3/4 in. (19 mm) thick tube insulation is used. When tube insulation thickness is less than 3/4 in. (19 mm), the T, FT and FTH Ratings are 0 Hr.

   See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-V1A may be used.

4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
1. Wall Assembly — The 1, 2 or 3 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide for 1 and 2 hr F and FH rating and 3-1/2 in. (89 mm) wide for 3 hr F and FH rating and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Min 5/8 in. (16 mm) thick with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 18-5/8 in. (473 mm).

The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrants — One metallic pipe or tubing to be installed within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:

A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing. When the hourly F or FH Rating of the firestop system is 3 hr, the nom diam of copper tube shall not exceed 4 in. (102 mm).

D. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. When the hourly F or FH Rating of the firestop system is 3 hr, the nom diam of copper pipe shall not exceed 4 in. (102 mm).
3. Pipe Covering* — Nom 1, 1-1/2 or 2 in. (25, 38 or 51 mm) thick hollow cylindrical heavy density (min 3.5pcf or 56 kg/m³) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. For 1 and 2 hr F and FH Ratings, the annular space between insulated penetrant and periphery of opening shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm). For 3 hr F and FH Ratings, the annular space shall be min 0 in. (point contact) to max 1-1/4 in. (32 mm).

See Pipe and Equipment Covering — Materials (BRGU) category in the Building Material Directory for the names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The hourly T, FT, FTH Ratings of the firestop system are 1/2 hr for 1 hr rated walls and 1 hr for 2 hr rated walls. For 3 hr rated walls, the hourly T, FT and FTH Ratings when steel and iron pipes are used are 1 hr. For 3 hr rated walls, the hourly T, FT and FTH Ratings when copper penetrants are used are 1-1/4 hr for 2 in. (51 mm) thick pipe covering and 0 hr for pipe covering thickness less than 2 in. (51 mm).

3A. Pipe Covering* — (Not Shown) — As an alternate to Item 3, max 2 in. (51 mm) thick cylindrical calcium silicate (min 14pcf) units sized to the outside diam of the pipe or tube may be used. Pipe insulation secured with stainless steel bands or min 18 AWG stainless steel wire spaced max 12 in. (305 mm) OC. When the alternate pipe covering is used, the T and FT Rating shall be as specified in item 3 above.

See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4. Fill, Void or Cavity Material* — Sealant — For 1 and 2 hr F and FH Rating, min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. For 3 hr F and FH Rating, min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
SECTION 07 9200 - JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Nonsag gunnable joint sealants.
   B. Joint backings and accessories.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
      1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
      2. List of backing materials approved for use with the specific product.
      3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
      4. Substrates the product should not be used on.
      5. Substrates for which use of primer is required.
   C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics.

1.04 QUALITY ASSURANCE
   A. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or other applicable method as recommended by manufacturer.

PART 2 PRODUCTS

2.01 JOINT SEALANT APPLICATIONS
   A. Scope:
      1. Interior Joints: Seal open interior joints, whether or not the joint is indicated on the Drawings, unless specifically indicated not to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
         a. Joints between door, window, and other frames and adjacent construction.
         b. Joints between casework, countertops and adjacent wall construction.
      2. Do not seal the following types of joints.
         a. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
         b. Joints where installation of sealant is specified in another section.
         c. Joints between suspended panel ceilings/grid and walls.
   B. Interior Joints: Use non-sag acrylic latex with silicone sealant, unless otherwise indicated.
      1. Floor Joints in Wet Areas: Non-sag polyurethane "traffic-grade" sealant suitable for continuous liquid immersion.
      2. Joints between Fixtures in Wet Areas and Countertops, Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; clear or match adjacent substrate.
   C. Interior Wet Areas: science lab; fixtures in wet areas include plumbing fixtures and countertops.
2.02 NONSAG JOINT SEALANTS

A. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
   1. Manufacturers:
      e. Substitutions: See Section 01 6000 - Product Requirements.

B. Non-Sag "Traffic-Grade" Polyurethane Sealant: ASTM C920, Grade NS. Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion and traffic without the necessity to recess sealant below traffic surface.
   2. Hardness Range: 40 to 50, Shore A, when tested in accordance with ASTM C661.
   3. Color: Match adjacent finished surfaces.
   4. Service Temperature Range: Minus 40 to 170 degrees F.
   5. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

C. General Purpose Interior Sealant: Acrylic latex with silicone; ASTM C834, Type OP, Grade NF, single component, paintable.
   2. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

2.03 ACCESSORIES

A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
   1. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.

B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.

D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.

E. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

PART 3 EXECUTION

3.01 EXAMINATION

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

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

3.03 INSTALLATION
A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
B. Perform installation in accordance with ASTM C1193.
C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
D. Install bond breaker backing tape where backer rod cannot be used.
E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
F. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
G. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 FIELD QUALITY CONTROL
A. Perform field quality control inspection/testing as specified in PART 1 under QUALITY ASSURANCE article.
B. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

END OF SECTION
SECTION 09 2116 - GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Metal stud wall framing.
B. Gypsum wallboard.
C. Joint treatment and accessories.
D. Textured finish system.

1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Wood blocking product and execution requirements.

1.03 REFERENCE STANDARDS

E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2014.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

2.02 METAL FRAMING MATERIALS

A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
   1. Studs: “C” shaped with flat or formed webs with knurled faces.
   2. Runners: U shaped, sized to match studs.
B. Partition Head To Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and braced with continuous bridging both sides.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   5. Substitutions: See Section 01 6000 - Product Requirements.
B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Use for vertical surfaces, unless otherwise indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Fire-Rated: As noted on Drawings, use Type X wallboard.
4. Thickness:
5. Mold Resistant Paper Faced Products:
   a. American Gypsum Company; M-Bloc Type X.
   b. Georgia-Pacific Gypsum; ToughRock Fireguard X Mold-Guard.
   c. National Gypsum Company; Gold Bond XP Fire-Shield Gypsum Board.
   d. USG Corporation; USG Sheetrock Brand Mold Tough Panels Firecode X.
   e. Substitutions: See Section 01 6000 - Product Requirements.

2.04 ACCESSORIES
A. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.
B. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
C. Finish Materials: Latex-based compound; plain.
D. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that project conditions are appropriate for work of this section to commence.

3.02 PREPARATION
A. Cut openings in wall as needed to expose mechanical, electrical or plumbing and wood blocking locations. Cut to adjacent stud locations. Make opening square and level to building lines.

3.03 FRAMING INSTALLATION
A. Studs: Space studs at 16 inches on center.
   1. Extend wall framing to above ceiling or to structure as noted on Drawings.
   2. Partitions Terminating at Structure: Attach extended leg top runner to structure, maintain clearance between top of studs and structure, and brace both flanges of studs with continuous bridging.
B. Blocking: Install wood blocking for support of:
   1. Wall mounted cabinets.
   2. Wall mounted accessories.
   3. Joint support where needed at patched areas.

3.04 BOARD INSTALLATION
A. Comply with ASTM C840, GA-216, and manufacturer's instructions.

3.05 INSTALLATION OF TRIM AND ACCESSORIES
A. Corner Beads: Install at external corners, using longest practical lengths.

3.06 JOINT TREATMENT
A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.
3.07 TEXTURE FINISH
   A. Apply finish texture coating by means of trowel in accordance with manufacturer's instructions and to match existing finish.

3.08 TOLERANCES
   A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION
SECTION 09 6513 - RESILIENT BASE

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Resilient base.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.

1.04 DELIVERY, STORAGE, AND HANDLING
A. Protect roll materials from damage by storing on end.

PART 2 PRODUCTS

2.01 RESILIENT BASE
A. Resilient Base: ASTM F1861, Type TV, vinyl, thermoplastic; Group I Solid, top set Style B, Cove.
   1. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.
   2. Height: 4 inch.
   3. Thickness: 0.080 inch thick.
   5. Length: Roll.
   6. Color: To be selected by Architect from manufacturer's standard range.
   7. Accessories: Premolded external corners and end stops.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.

3.02 RESILIENT BASE
A. Fit joints tightly and make vertical. Maintain minimum dimension of 48 inches between joints.
B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
C. Install base on solid backing. Bond tightly to wall and floor surfaces. Apply adhesive near top and bottom of base to prevent curling.

3.03 CLEANING
A. Remove excess adhesive from floor, base, and wall surfaces without damage.
B. Clean in accordance with manufacturer's written instructions.

END OF SECTION
SECTION 09 6700 - FLUID-APPLIED FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Fluid-applied flooring.

1.02 RELATED REQUIREMENTS
   A. Section 01 2300 - Alternates: Alternate No. 1 Fluid Applied Flooring Overlay.
   B. Section 09 6513 - Resilient Base: Wall base.

PART 2 PRODUCTS

2.01 MANUFACTURERS
      2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 MATERIALS
      1. Thickness: 20 mils, nominal, when dry.
      2. Texture: Slip resistant.
      4. Color: Tint to match existing.

2.03 ACCESSORIES
   A. Primer: Florock Polymer Flooring; Floropoxy System 4700 Epoxy, 100 percent solids, reactive, epoxy based, penetrating primer that exhibits chemical resistance, fast curing and self-leveling.
   B. Joint and Crack Filler: Florock Polymer Flooring; System 6500 Elastomer, 100 percent solids, 150 percent elongation capability.
   C. Transition Strips: Molded rubber, color to match wall base.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive flooring.
   B. Examine existing coating to ensure that it is well bonded to concrete.
   C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of materials to sub-floor surfaces.
   D. Verify that concrete sub-floor surfaces are ready for flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by flooring materials manufacturer.
   E. Test products for bonding capability to concrete curing compounds. Remove curing compound if required for bond to concrete substrate.

3.02 PREPARATION
   A. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with crack and joint filler per manufacturer's instructions.
   B. Remove any loose existing coating and sand edges to feather profile.
   C. Clean entire floor thoroughly with water and detergent. Remove all dirt, oils and other contaminants. Allow floor to dry.
   D. Bid Alternate 1: Sand surface of existing coating until a powdery residue is evident and all gloss is removed.
E. Vacuum clean substrate. Rub with tack rag soaked in Florobase thinner to pick up dust and ensure good adhesion of new coating.
F. Apply primer to concrete surfaces as required by flooring manufacturer.

3.03 INSTALLATION - FLOORING
A. Apply in accordance with manufacturer's instructions.
B. Apply patch coats at areas where existing coating has been removed and where new concrete has been placed to create a level substrate.
C. Apply each coat to thickness required by manufacturer. Match existing flooring thickness for a smooth flush transition between new and existing.
D. Bid Alternate 1: Overlay existing flooring with new fluid applied flooring system. Apply layers to achieve full 20 mil thickness over existing flooring.
E. Finish to level surface. Broadcast glass beads into topcoat to provide slip-resistive finish.
F. Bid Alternate 1: Remove existing transition strips and provide new transition strips at changes in floor finishes. Align with centerline of doors.

3.04 PROTECTION
A. Prohibit traffic on floor finish for 48 hours after installation.
B. Barricade area to protect flooring until fully cured.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.
B. Field application of paints.
C. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
   1. Mechanical and Electrical:
      a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
      b. In finished areas, paint shop-primed items.
D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
   5. Floors.
   7. Concealed pipes, ducts, and conduits.

1.02 REFERENCE STANDARDS

B. SSPC-SP 1 - Solvent Cleaning; 2015.
C. SSPC-SP 3 - Power Tool Cleaning; 1982 (Ed. 2004).

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
C. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Paint and Finish Materials: 1 gallon of each color; store where directed.
   3. Label each container with color in addition to the manufacturer's label.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum five years experience.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

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

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
   1. Substitution of MPI-approved products by a different manufacturer is preferred over substitution of unapproved products by the same manufacturer.
B. Paints:
C. Substitutions: See Section 01 6000 - Product Requirements.

2.02 PAINTS AND FINISHES - GENERAL
A. Paints and Finishes: Ready mixed, unless intended to be a field-catalyzed paint.
   1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
   3. Supply each paint material in quantity required to complete entire project's work from a single production run.
   4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
B. Volatile Organic Compound (VOC) Content: Use Low Odor, Low VOC products on interior wall, ceiling and structural surfaces.
C. Colors: As indicated on drawings.
   1. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - INTERIOR
A. Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board, uncoated steel, shop primed steel, and galvanized steel.
   1. Two top coats and one coat primer.
B. Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
   1. Medium duty applications include door frames.
   2. One top coat over existing paint.
   3. Top Coat(s): Interior Alkyd; MPI #47.
   4. Top Coat Sheen:
      a. Semi-Gloss: MPI gloss level 5; use this sheen at all locations.
5. Primer: As specified under "PRIMERS" below.

C. Medium Duty Vertical and Overhead: Including gypsum board, uncoated steel, shop primed steel, and galvanized steel.
   1. Two top coats and one coat primer.
   2. One top coat over existing paint.
   3. Top Coat(s): Institutional Low Odor/VOC Interior Latex; MPI #147.
   4. Top Coat Sheen:
      a. Semi-Gloss: MPI gloss level 5; use this sheen at walls.
   5. Primer: As specified under "PRIMERS" below.

2.04 PRIMERS
A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
   1. Interior Institutional Low Odor/VOC Primer Sealer; MPI #149, for gypsum board.
   2. Anti-Corrosive Alkyd Primer for Metal; MPI #79, for touch up of factory applied primer.
   3. Interior Rust-Inhibitive Water Based Primer; MPI #107, for bare metal.
   4. Interior/Exterior Quick Dry Alkyd Primer for Metal; MPI #76, for touch up of factory applied primer.
   5. Interior Water Based Primer for Galvanized Metal; MPI #134, for electrical conduit and boxes.
   6. Bonding Primer, Water Based; MPI #17, for use over existing paint or finishes.

2.05 ACCESSORY MATERIALS
A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
B. Patching Material: Latex filler.
C. Patching Filler for Metal Surfaces: Modified Alkyd.
   1. Products:
      b. Substitutions: Section 01 6000 - Product Requirements.

PART 3 EXECUTION
3.01 EXAMINATION
A. Do not begin application of paints and finishes until substrates have been properly prepared.
B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
D. Test shop-applied primer for compatibility with subsequent cover materials.
E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard: 12 percent.

3.02 PREPARATION
A. Clean surfaces thoroughly and correct defects prior to application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
C. Remove or repair existing paints or finishes that exhibit surface defects.
D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
E. Seal surfaces that might cause bleed through or staining of topcoat.
F. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
G. Galvanized Surfaces:
   1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.

H. Ferrous Metal:
   1. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather
dges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare
steel surfaces.
   2. Remove rust, loose mill scale, and other foreign substances using methods
recommended in writing by paint manufacturer and power tool cleaning according to
SSPC-SP 3. Protect from corrosion until coated.

3.03 APPLICATION
   A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical
components and paint separately.
   B. Apply products in accordance with manufacturer's written instructions and recommendations in
"MPI Architectural Painting Specification Manual".
   C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
   D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is
   applied.
   E. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
   F. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many
   coats as necessary for complete hide.
   G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just
   prior to applying next coat.
   H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed
   prior to finishing.

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

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

END OF SECTION
SECTION 11 5215 - AUDIO-VISUAL EQUIPMENT SUPPORTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Flat screen display mounting unit.

1.02 SCOPE OF WORK

A. Mounting unit and display monitor will be supplied by Owner. Both shall be installed by Contractor.

1.03 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Concealed wood blocking for supports.

1.04 REFERENCE STANDARDS

A. VESA FDMI- Video Electronics Standards Association, Flat Display Mounting Interface Standard.

1.05 QUALITY ASSURANCE

A. Warranty: 5 years full replacement warranty covering defects in materials and workmanship.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Mounts for Large Flat Screen Displays: flat wall mount.
   4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 CONSTRUCTION

A. Flat Wall Mount: VESA compliant, open frame, low profile.
   1. Adjustability: Horizontal sliding brackets, 12 inch adjustment minimum to compensate for off center stud spacing; plus or minus 0.5 inch vertical adjustment for leveling.
   2. Size: Capable of supporting 46 to 70 inch flat screen display.
   3. Weight Capacity: 150 pounds minimum.

B. Materials: Heavy gauge steel with MIG welds.
   2. Color: Black.

C. Mount manufacturer shall provide all anchoring devices and fastener accessories as required for a complete installation.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine walls and locations for the installation of the mounting unit. Confirm backing is in place, as required by manufacturer and there are clearances around units for operation of mount function. Provide for proper clearance of outlets and connection data ports.

B. Should conflicts exist, do not proceed until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Follow manufacturer's printed instructions for installation.

B. Install in locations and at mounting heights indicated or as directed by Architect.

C. Prepare installation for proper operation as required by type and size of mount and style and to comply with manufacturer's instructions.
   1. In acoustic rated wall construction, maintain integrity of rated assembly.
D. Fasten mounting frame to structure for square and plumb installation; adjust brackets as needed for final monitor horizontal and level location.

END OF SECTION
SECTION 12 3553.19 - WOOD LABORATORY CASEWORK

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Wood cabinets and cabinet hardware.

1.02 RELATED REQUIREMENTS
   A. 01 2300 - Alternates: Alternate No. 2 Wood Laboratory Casework.
   B. Section 07 9200 - Joint Sealants: Sealing joints between casework and countertops and adjacent walls, floors, and ceilings.
   C. Section 12 3600 - Countertops: Additional requirements for countertops.

1.03 DEFINITIONS
   A. Exposed: Portions of casework visible when drawers and cabinet doors are closed, including end panels, bottoms of cases more than 42 inches above finished floor, tops of cases less than 72 inches above finished floor and all members visible in open cases or behind glass doors.
   B. Semi-Exposed: Portions of casework and surfaces behind solid doors, tops of cases more than 72 inches above finished floor and bottoms of cabinets more than 30 inches but less than 42 inches above finished floor.
   C. Concealed: Sleepers, web frames, dust panels and other surfaces not generally visible after installation and cabinets less than 30 inches above finished floor.

1.04 REFERENCE STANDARDS
   A. BHMA A156.9 - American National Standard for Cabinet Hardware; 2010.
   B. HPVA HP-1 - American National Standard for Hardwood and Decorative Plywood; 2009.
   C. SEFA 2.3 - Installation of Scientific Laboratory Furniture and Equipment; 2010.
   D. SEFA 3 - Work Surfaces; 2010.
   E. SEFA 7 - Laboratory and Hospital Fixtures; 2010.
   F. SEFA 8W - Laboratory Grade Wood Casework; 2010.

1.05 ADMINISTRATIVE REQUIREMENTS
   A. Large Components: Ensure that large components can be moved into final position without damage to other construction.

1.06 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Component dimensions, configurations, construction details, joint details, attachments; manufacturer's catalog literature on hardware, accessories, and service fittings, if any.
   C. Shop Drawings: Casework locations, large scale plans, elevations, cross sections, rough-in and anchor placement dimensions and tolerances, clearances required, and utility locations, if any.
   D. Samples For Color Confirmation: Wood samples, fully finished, for color and species confirmation.

1.07 QUALITY ASSURANCE
   A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years of experience.
   B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than five years of experience.
PART 2 PRODUCTS

2.01 WOOD LABORATORY CASEWORK

A. Wood Laboratory Casework: Solid wood and wood panel construction; each unit self-contained and not dependent on adjacent units or building structure for rigidity; in sizes necessary to avoid field cutting except for scribes and filler panels.
   1. Style: Lipped overlay.
   2. Construction: Provide joints doweled, glued and screwed, except drawers may be lock shoulder jointed; with interior of units smooth and flush; cabinet bottom flush with top of face frame; without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
   3. Structural Performance: In addition to the requirements of SEFA 3, SEFA 7, and SEFA 8W, components safely support the following minimum loads:
      a. Base Units: 500 lbs linear ft across the cabinet ends.
      b. Suspended Units: 300 lbs static load.
      c. Drawers: 100 lbs, minimum.
      d. Hanging Wall Cases: 300 lbs (136 kg).
      e. Shelves: 100 lbs, minimum.
   4. Shelf Quantity: 1 per 10 to 14 inches of vertical case space for base, upper and full height cabinets, unless shown otherwise on Drawings.
   5. Scribes and Fillers: Where cabinets do not fit tight to adjacent construction, provide filler panels of matching construction and finish.
   6. Finish: Factory-finish all exposed and semi-exposed surfaces with the same finish.
      a. Preparation: Wood sanded smooth, free from dust and mill marks.
      b. Stain: Single application of clean, manufacturer-recommended stain of selected color; tinted coating not acceptable. Match existing casework.
      c. Coating: Clear, superior-quality, chemical-resistant acyclic urethane; applied in accordance with manufacturer instructions, force-dried or UV-cured, sanded and wiped clean.
      d. Coats: Multiple coats as required to achieve minimum 1.5 mil dry film thickness.
      e. Appearance: Clear satin gloss; not cloudy or muddy. Match existing casework.

B. Countertops: As specified in Section 12 3600.

2.02 MATERIALS

A. Wood-Based Materials:
   1. Solid Wood: Air-dried to 4.5 percent moisture content, then tempered to 6 percent moisture content before use.
   2. Composite Wood Panels: Containing no urea-formaldehyde resin binders.

B. Exposed Solid Wood: Clear, dry, sound, plain sawn, selected for compatible grain and color, no defects.

C. Exposed Hardwood Plywood: Veneer core; HPVA HP-1 Grade AA, Type I; same species as exposed solid wood, clear, compatible grain and color, no defects. Band exposed edges with solid wood of same species as veneer.

D. Semi-Exposed Solid Wood: Dry, sound, plain sawn, no appearance defects, any species similar in color and grain to exposed portions.

E. Semi-Exposed Hardwood Plywood: Veneer core; HPVA HP-1 Grade B Type I; plain sliced, any species similar in color and grain to exposed portions.

F. Concealed Solid Wood or Plywood: Any species and without defects affecting strength or utility.

G. Wood Species: White Oak.

2.03 HARDWARE

A. Hardware: BHMA A156.9, types as indicated for quality grade specified.
B. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, satin chrome finish, for nominal 1 inch spacing adjustments.

C. Drawer and Door Pulls: U-shaped cast aluminum pull, satin finish, match existing.

D. Catches: Magnetic with adjustable body, 5 pound holding force.

E. Drawer Slides:
   1. Type: Full extension, captive nylon rollers.
   2. Static Load Capacity: 100 lbs. load capacity.
   3. Mounting: Bottom or side.
   4. Stops: Integral type.
   5. Features: Provide self closing/stay closed type.
   7. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

F. Hinges: Five knuckle institutional hinge with hospital tips, semi-concealed type, BHMA No. 156.9, steel with satin finish.
   1. Manufacturers:
      d. Substitutions: See Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify adequacy of support framing and anchors.
   B. Verify that service connections are correctly located and of proper characteristics.

3.02 INSTALLATION
   A. Perform installation in accordance with manufacturer's instructions and with SEFA 2.3.
   B. Use anchoring devices to suit conditions and substrate materials encountered.
   C. Set casework items plumb and square, securely anchored to building structure.
   D. Align cabinets to adjoining components, install filler panels where necessary to close gaps. Scribe filler panel to fit adjacent surfaces; do not use additional overlay trim.
   E. Replace units that are damaged, including those that have damaged finishes.

3.03 ADJUSTING
   A. Adjust operating parts, including doors, drawers, hardware, and fixtures to function smoothly.

3.04 CLEANING
   A. Clean casework surfaces thoroughly.

3.05 PROTECTION
   A. Do not permit finished casework to be exposed to continued construction activity.
   B. Repair damage that occurs prior to Date of Substantial Completion, including finishes, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

END OF SECTION
SECTION 12 3600 - COUNTERTOPS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Countertops for casework.

1.02 RELATED REQUIREMENTS
   A. Section 06 4100 - Plastic Laminate Faced Architectural Wood Casework.
   B. Section 12 3553.19 - Wood Laboratory Casework.

1.03 REFERENCE STANDARDS
   C. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
   D. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

1.04 SUBMITTALS
   A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
   B. Product Data: Manufacturer's data sheets on each product to be used, including:
      1. Material characteristics.
      2. Performance data including chemical resistance to common solvents and acids.
   C. Shop Drawings: Complete details of materials and installation; combine with shop drawings of
      cabinets and casework specified in other sections.
   D. Verification Samples: For each finish product specified, minimum size 2 to 3 inches square,
      representing actual product, color, and patterns.

1.05 QUALITY ASSURANCE
   A. Installer Qualifications: Company specializing in performing work of the type specified in this
      section, with not less than seven years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Store products in manufacturer's unopened packaging until ready for installation.
   B. Store and dispose of solvent-based materials, and materials used with solvent-based materials,
      in accordance with requirements of local authorities having jurisdiction.

1.07 FIELD CONDITIONS
   A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits
      recommended by manufacturer for optimum results. Do not install products under
      environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.01 COUNTERTOPS
   A. Plastic Laminate Countertops: High-pressure decorative laminate (HPDL) sheet bonded to
      substrate.
      1. Laminate Sheet: NEMA LD 3, Grade HGS, 0.048 inch nominal thickness.
         a. Manufacturers:
            4) Substitutions: See Section 01 6000 - Product Requirements.
         b. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke
            developed index of 450, maximum; when tested in accordance with ASTM E84.
         c. Laminate Core Color: Same as decorative surface.
d. Finish: Matte or suede, gloss rating of 5 to 20.
e. Surface Color and Pattern: Black.

2. Exposed Edge Treatment: Square, substrate built up to minimum 1-1/4 inch thick; covered with matching laminate.

3. Back and End Splashes: Same material, same construction.

4. Fabricate in accordance with AWI/AWMAC/WI (AWS), Section 11 - Countertops, Custom Grade.

2.02 MATERIALS

A. Particleboard for Supporting Substrate: ANSI A208.1 Grade 2-M-2, 45 pcf minimum density; minimum 3/4 inch thick; join lengths using metal splines.

B. Adhesives: Chemical resistant waterproof adhesive as recommended by manufacturer of materials being joined.

2.03 FABRICATION

A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
   1. Join lengths of tops using best method recommended by manufacturer.
   2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
   3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.

B. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.
   1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
   2. Height: 4 inches, unless otherwise indicated.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

3.02 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

A. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.

B. Attach plastic laminate countertops using screws with minimum penetration into substrate board of 5/8 inch.

C. Seal joint between back/end splashes and vertical surfaces.

3.04 TOLERANCES

A. Variation From Horizontal: 1/8 inch in 10 feet, maximum.

B. Offset From Wall, Countertops: 1/8 inch maximum; 1/16 inch minimum.

C. Butt joints: Hairline.

3.05 CLEANING

A. Clean countertops surfaces thoroughly.
3.06 PROTECTION

A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION