



Set Number:

Project Manual

Toilet Renovations For:

Roane County Schools

Midtown Elementary School

2830 Roane State Highway, Harriman, TN 37748

Oliver Springs Academy

317 Roane Street, Oliver Springs, TN 37840

Project Number

LGA# 22050

Date of Issuance

05/08/2023

Owner Name and Address

Roane County Schools

105 Bluff Road
Kingston, TN 37763

Architect

Lewis Group Architects, Inc.

6512 Deane Hill Drive, Knoxville, TN 37919 V (865) 584-5000 F (865) 588-1272 www.lewisgroup.net
63 North Ocoee Street, Cleveland, TN 37311 V (423) 476-0012 F (423) 476-0012

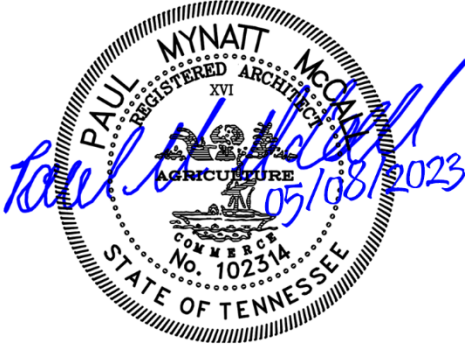



Mechanical/Plumbing/Electrical Engineer

Engineering Services Group, Inc.

Structural Engineer

Bennett & Pless, Inc.

SEALS PAGE 00 01 07

 <p>Architecture</p>	 <p>Structural</p>
 <p>Mechanical - Plumbing</p>	 <p>Electrical</p>

END OF DOCUMENT 00 01 07

SECTION 00 01 10 - TABLE OF CONTENTS

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 01 07 - Seals Page
- 00 01 10 - Table of Contents
- 00 01 15 - List of Contract Drawings
- 00 11 15 - Advertisement for Bid (Owner Document)
- 00 20 00 - Roane County Purchasing General Terms & Conditions (Owner Document)
- 00 20 00.1 - Roane County Contract Terms and Conditions
- 00 20 00.2 - Roane County Regulation Compliance (Owner Document)
- 00 20 00.3 - Roane County Non-Discrimination, Non-Debarment & Lobbying Affidavit (Owner Document)
- 00 20 00.3 - Roane County Iran Divestment Act Compliance (Owner Document)
- 00 20 00.3 - Roane County Non-Boycott of Israel Affidavit (Owner Document)
- 00 20 00.4 - Roane County Purchasing Vendor Information Form (Owner Document)
- 00 20 00.5 - Roane County Purchasing Signatory Authority Form (Owner Document)
- 00 20 00.6 - Roane County Drug-Free Workplace Affidavit (Owner Document)
- 00 20 00.7 - Roane County Statement of Compliance Certificate Illegal Immigrants (Owner Document)
- 00 20 00.8 - Roane County Regulation Compliance Affidavit (Owner Document)
- 00 20 00.9 - Roane County Bid Envelope Cover (Owner Document)
- 00 21 13 - Instructions to Bidders
- 00 41 00 - Bid Form
- 00 61 13 - Performance and Payment Bond
- 00 72 00 - General Conditions
- 00 73 00 - Supplementary Conditions

DIVISION 01 - GENERAL REQUIREMENTS

- 01 11 00 - Summary of Work
- 01 26 00 - Contract Modification Procedures
- 01 29 00 - Payment Procedures
- 01 32 00 - Project Meetings
- 01 33 00 - Submittal Procedures
- 01 40 00 - Quality Requirements
- 01 42 00 - References
- 01 50 00 - Temporary Facilities and Controls
- 01 63 00 - Substitution Procedures
- 01 63 10 - Substitution Request Form
- 01 73 29 - Cutting and Patching
- 01 77 00 - Project Closeout

DIVISION 02 - EXISTING CONDITIONS

- 02 41 19 - Interior Selective Demolition

DIVISION 03 - CONCRETE

See Structural Sheets

DIVISION 04 - MASONRY

See Structural Sheets

DIVISION 05 - METALS

See Structural Sheets

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

Not Used

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 84 53 - Fire Safing

07 92 00 - Joint Sealants

DIVISION 08 - OPENINGS

08 11 13 - Hollow Metal Frames

08 14 16 - Flush Wood Doors

08 71 00 - Door Hardware

DIVISION 09 - FINISHES

09 21 16 - Gypsum Board Assemblies

09 22 16 - Non-Structural Metal Framing

09 30 00 - Tiling

09 65 00 - Resilient Flooring

09 80 00 - Self-Leveling Flooring Underlayment

09 91 23 - Painting

DIVISION 10 - SPECIALITES

10 21 13 - Phenolic Toilet Compartments

10 28 13 - Toilet Accessories

DIVISION 22 - PLUMBING

See Plumbing Sheets

DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING

See Mechanical Sheets

DIVISION 26 - ELECTRICAL

See Electrical Sheets

DIVISION 33 - UTILITIES

See Plumbing Sheets

END OF SECTION 00 01 10

DOCUMENT 00 01 15 - LIST OF CONTRACT DRAWINGS

The Following Drawings, Identified As "Toilet Renovations for: Roane County Schools" comprise the Contract Drawings:

INDEX OF DRAWINGS:

CO-1 Cover Sheet

ARCHITECTURAL

MT.A1 Midtown Elementary School Floor Plans, Ceiling Plan, Schedules and Details

STRUCTURAL

MT.S1 Midtown Elementary School General Notes
MT.S2 Midtown Elementary School Renovation Plan

PLUMBING

MT.P1 Midtown Elementary School Floor Plans - Plumbing/Schedules and Details

MECHANICAL

MT.M1 Midtown Elementary School Floor Plans - HVAC/Schedules and Details

ELECTRICAL

MT.E1 Midtown Elementary School Floor Plans - Electrical
MT.E2 Midtown Elementary School Electrical Specifications

ARCHITECTURAL

OS.A1 Oliver Springs Academy Floor Plans, Ceiling Plan, Schedules and Details

STRUCTURAL

OS.S1 Oliver Springs Academy General Notes
OS.S2 Oliver Springs Academy Renovation Plan

FIRE PROTECTION

OS.FP1 Oliver Springs Academy Floor Plan - Fire Protection/Schedules and Details

PLUMBING

OS.P1 Oliver Springs Academy Floor Plans - Plumbing/Schedules and Details

MECHANICAL

OS.M1 Oliver Springs Academy Floor Plans - HVAC/Schedules and Details

ELECTRICAL

OS.E1 Oliver Springs Academy Floor Plans - Electrical
OS.E2 Oliver Springs Academy Electrical Specifications

END OF DOCUMENT 00 01 15

**ROANE COUNTY PURCHASING
200 EAST RACE STREET, SUITE #3
KINGSTON, TENNESSEE 37763
PHONE 865-376-4317 • FAX 865-376-4318**

ADVERTISEMENT FOR BID

Roane County is inviting sealed bids for **TOILET RENOVATIONS FOR: ROANE COUNTY SCHOOLS** subject to the Terms and Conditions of the Invitation to Bid, the bid specifications and the Roane County Purchasing Manual. This project is being funded by the Emergency & Secondary School Emergency Relief (ESSER) funds.

All bidders must be licensed Contractors as required by the Contractors Licensing Act of 1976, as currently amended if bid price exceeds \$25,000.

If bidding over \$25,000 a 5% bid bond is required. Performance and payment bonds in the total amount of the contract are required.

Project Locations: Oliver Springs Academy
 317 Roane Street
 Oliver Springs, TN 37840

Midtown Elementary School
2830 Roane State Highway
Harriman, TN 37748

Bids Received By: Lynn Farnham, Purchasing Agent, CPPO, CPPB
 Roane County Courthouse
 200 East Race Street, Suite #3
 Kingston, TN 37763

Bids Received Until: 2:00 p.m. (EST) on Thursday, June 22, 2023

Project Architects: Lewis Group Architects, Inc.
 6512 Deane Hill Drive
 Knoxville, TN 37919

Roane County Government hereby notifies all bidders, that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the basis of age, race, color, religion, national origin, sex or disability in consideration for an award.

Roane County Government is an equal opportunity affirmative action employer, drug-free, with policies of nondiscrimination on the basis of race, sex, religion, color, national or ethnic origin, age, disability, or military service.

The Roane County Purchasing Department will receive sealed bids for **TOILET RENOVATIONS FOR: ROANE COUNTY SCHOOLS** as specified herein. Bids are to be received by **2:00:00 p.m. on JUNE 22, 2023**. Late submittals will neither be considered nor returned.

This project is being funded by the Emergency & Secondary School Emergency Relief (ESSER) funds.

Deliver Bids To:

**Bid Number #2023-21-142
Roane County Purchasing Department
200 East Race Street, Suite 3
Kingston, Tennessee 37763**

The Bid Envelope must show the Company Name, Bid Name, Bid Number & Bid Opening Date.

Purchasing Contact Information

**Lynn Farnham, CPPO, CPPB
Roane County Purchasing Agent
Phone: 865-376-4317
Fax: 865-376-4318
Email: lynn.farnham@roanecountytn.gov**

GENERAL TERMS & CONDITIONS

1. Addenda

No modifications to the Invitation to Bid (ITB) shall be binding upon Roane County unless made in writing by an authorized representative of the Roane County Purchasing Department. Bid addenda, if issued, are sent to registered bidders. Prior to submitting a bid, it is the responsibility of the bidder to ascertain that they have received all addenda issued and bid accordingly.

Pursuant to TCA §12-4-126, questions regarding the specifications or bid procedures must be received by the Purchasing Agent and/or designer no less than ninety-six (96) hours before the bid opening date. No addenda will be issued within less than forty-eight (48) hours of the bid opening day, excluding weekends and legal holidays designated in §15-1-101 unless the bid opening is extended for a reasonable time as determined by the Purchasing Agent, which shall not be less than forty-eight (48) hours excluding weekends and legal holidays designated in §15-1-101, to allow for any necessary changes to ITB documents and to allow responders to resubmit their responses accordingly.

All questions concerning the ITB are to be submitted in writing to the Purchasing Department. Information obtained from any other source is not to be considered binding.

2. Appropriation

In the event no funds are appropriated by the Roane County Legislative Body for the goods and services specified in any fiscal year or insufficient funds exist to purchase the goods or services, then the Contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever comes first, with no further obligations owed to or by either party.

3. Assurance Statement:

- i. The vendor hereby agrees that it will comply with:
- ii. Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.);
- iii. Title IX of the Education Amendments of 1972 (20 U.S.C. 1681 et seq.);
- iv. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794);
- v. Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.);
- vi. Title II and Title III of the Americans with Disabilities Act (ADA) of 1990 as amended by the ADA Amendment Act of 2008 (42 U.S.C. 12131-12189);
- vii. Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency." (August 11, 2000);
- viii. All provisions required by the implementing regulations of the Department of Agriculture (USDA) (7 CFR Part 15 et seq.);
- ix. Department of Justice Enforcement Guidelines (28 CFR Parts 35, 42 and 50.3);
- x. Food and Nutrition Service (FNS) directives and guidelines to the effect that, no person shall, on the grounds of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or otherwise be subject to discrimination under any

program or activity for which the Program applicant receives Federal financial assistance from USDA; and hereby gives assurance that it will immediately take measures necessary to effectuate this Agreement.

- xi. The USDA non-discrimination statement that in accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). This assurance is given in consideration of and for the purpose of obtaining any and all Federal financial assistance, grants, and loans of Federal funds, reimbursable expenditures, grant, or donation of Federal property and interest in property, the detail of Federal personnel, the sale and lease of, and the permission to use Federal property or interest in such property or the furnishing of services without consideration or at a nominal consideration, or at a consideration that is reduced for the purpose of assisting the recipient, or in recognition of the public interest to be served by such sale, lease, or furnishing of services to the recipient, or any improvements made with Federal financial assistance extended to the Program applicant by USDA. This includes any Federal agreement, arrangement, or other contract that has as one of its purposes the provision of cash assistance for the purchase of food, and cash assistance for purchase or rental of food service equipment or any other financial assistance extended in reliance on the representations and agreements made in this assurance.

4. Availability of Requested Items

Bidders must accept responsibility for verifying availability of specified items prior to submission of bid. If specified items are discontinued, replaced or will not be available for an extended period of time, bidder shall notify the Purchasing Department no less than 96 hours prior to the bid deadline, excluding weekends and legal holidays.

5. Award - Evaluation

The right is reserved, as the interest of the Roane County may require, to reject any and all bids and to waive any informality in bids received. Roane County reserves the right to make an award on all items or on any of the items and for an item quantity less than the quantity bid upon unless qualified by specific limitation of the bidder. Contract award, if made, shall be to the responsive, responsible bidder submitting the lowest bid. (*Responsive Bidder* is defined as a contractor, business entity or individual who has submitted a bid that fully conforms in all material respects to the ITB and all of its requirements, including all form and substance. *Responsible Bidder* is defined as a contractor, business entity or individual who has the capacity in all respects to perform fully the contract requirements, and the integrity and reliability which will assure good faith performance.) In the event tie bids are totally equal, selection shall be made by publicly witnessed drawing of lots. Disputes arising from the award of this bid must be submitted in writing to the Purchasing Department and received no later than five (5) calendar days from contract award date.

The contract will be awarded to the bidders whose bid is the lowest from a responsive and responsible bidder for the area of distribution. Regardless of the procurement method used, price is the final determining factor for awarding the contract. Vendors are requested to note on their bid document that is submitted if they will honor bid pricing for one year from the award date.

Roane County reserves the right to accept or reject any or all bids and does not guarantee that a contract will result from this ITB. Roane County reserves the right to award to the responsible bidder whose bid, conforming to all the material terms and conditions of the ITB, is the lowest in price. The bidder may be required by Roane County to prove their financial and productive capacity to perform the requirements of this ITB. The bidder shall be prepared to supply the Roane County, upon request, three (3) customer references of similar work performed by the bidder.

6. Background Check – School Projects

Any employee of the successful vendor or subcontractor must submit to a criminal history, records check prior to the employee having contact with students or entering school grounds when students are present. Reference TCA § 49-5-413 as amended in Public Chapter 1080. This check is at the vendor's expense and is conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation.

7. Bankruptcy or Insolvency

In the event of any voluntary or involuntary proceedings by or against either party in bankruptcy or insolvency, or for the appointment of a receiver, trustee or an assignee for the benefit of creditors of the property of seller, or in the event of breach of any of the terms hereof including the warranties of the seller, ROANE COUNTY may cancel this contract or affirm the contract and hold the seller responsible for damages.

8. Bid Acceptance

Bid prices quoted shall be held firm and subject to acceptance by Roane County for a period of 60 calendar days from the bid deadline unless bidder indicates otherwise in their bid. If awarded the bid within the time frame specified, bidder agrees to furnish all supplies/services described or specified at the prices and delivery time quoted.

9. BUSINESS LICENSES

Bidders located in Tennessee are required to have a current business license issued by the State of Tennessee at the time the bids are submitted. Vendors located outside Tennessee are required to obtain a business license issued by the State of Tennessee and in Roane County if the project cost is over \$50,000.

10. Compliance with Applicable Laws

Contractor is assumed to be familiar with and agrees to observe and comply with all federal, state, and local laws, statutes, ordinances, and regulations in any manner affecting the provision of goods and/or services, and all instructions and prohibitive orders issued regarding this work and shall obtain all necessary permits.

11. Conflict of Interest

No employee, officer or agent of Roane County shall participate in the selection or award of, or administration of a contract if a conflict of interest, real or apparent, would be involved. Roane County employees, officers, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors, potential contractors, or parties to sub-agreements.

By submission of its bid, Contractor covenants that it has no public or private interest, nor shall acquire directly or indirectly any interest, which would conflict in any manner with the provision of its goods or performance of its contractual services. Contractor warrants that no part of the total contract amount provided herein shall be paid directly or indirectly to any officer or employee of Roane County as wages, compensation, or gifts in exchange for acting as officer, agent, employee, subcontractor or consultant to Contractor in connection with any goods provided or work contemplated or performed relative to the agreement.

12. Contract Modification

The contract expresses the complete agreement of the parties. Any changes hereto must be in writing and signed by the Roane County Purchasing Agent. No other individual is authorized to modify the contract in any manner.

13. Contract Period

If awarded, the bid period for this award shall be a one-year period. Contract pricing shall be firm for one (1) year.

14. Contract Terms

Upon award, the performance of this contract shall be covered solely by the terms and conditions set forth herein. Any language contained on any invoice, shipping order, bill of lading or other document furnished by the seller at any time and the acceptance by Roane County of any goods/services to be furnished hereunder accompanied by any such document shall not be construed as an acceptance by Roane County of any terms or conditions contained in such document which are inconsistent with the terms and conditions set forth in this Invitation. Any different or additional terms contained in the seller's acceptance are hereby objected to.

15. Debarment and Suspension

USDA/FNS follows the guidance in 2 CFR part 180, OMB Guidelines to agencies on Governmentwide Non-procurement Debarment and Suspension, as well as related Executive Orders 12689 and 12549, which requires verification that the person with whom they intend to do business has not been excluded or disqualified when entering into a transaction covered by this section. This verification will be done by completing the attached form at the end of this document.

By signing this proposal, the Contractor certifies that it and its current principals, and its current subcontractors and their principals:

- (A) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency;
- (B) Have not within a three (3) year period preceding this Contract been convicted of, or had a civil judgment rendered against them from commission of fraud, or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or grant 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;
- (C) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses detailed in section b. of this certification; and
- (D) Have not within a three (3) year period preceding this Contract had one or more public transactions (federal, state, or local) terminated for cause or default.

The Contractor shall provide immediate written notice to the County if at any time it learns that there was an earlier failure to disclose information or that due to changed circumstances, its principals or the principals of its subcontractors are excluded or disqualified. The bidder must complete the USDA Debarment and Suspension Certification form.

16. Declarative Statements

Statements or words such as must, shall, or will are declarative statements and the vendor must comply with the condition. Failure to comply with any such condition may result in the proposal being non-responsive and disqualified.

17. Definitions

- (A) Roane County, Tennessee, and includes its designated representatives.
- (B) The "Contractor" is those mentioned as such "contractor, seller, vendor, supplier", in the contract and includes their designated representatives.

- (C) The "Specifications" includes instructions to bidders, the terms and conditions of purchase, the definitions and the technical specifications of the work.
- (D) A "Subcontractor" is a person, firm or corporation having a contract with the Contractor to furnish labor and materials or both, or who performs services of the project.
- (E) "Calendar Days" are consecutive days, as occurring on a calendar, without regard to the day of the week, month, year, or holidays. The National Institute of Governmental Purchasing (NIGP) Online Dictionary of Procurement Terms, at www.nigp.org, will govern on questions as to any other definition in this contract.

18. Delivery

Delivery will be F.O.B. Destination unless otherwise specified in this ITB. This will apply to regular and normal stock items and special items which must be ordered direct from manufacturer. All transportation charges shall be paid by the seller.

To ensure adequate service level to the people, Roane County requires that all goods or services ordered will be delivered when specified. Time is, therefore, the essence of this contract. If delivery is not made or service performed at the time agreed upon, Roane County reserves the right to cancel the order and purchase elsewhere and hold seller accountable therefore. Repeated instances of not meeting the stated delivery time will be just cause for termination of the contract.

19. Federal Tax and State Sales Tax

Purchases by Roane County are not subject to any state sales or federal excise taxes. Exemption certificates shall be furnished upon the Contractor's request.

20. Force Majeure

Neither party shall be liable for delays, or defaults in the performance of this contract due to Force Majeure or the public enemy, riots, strikes, fires, explosions, accidents, governmental action of any kind or any other causes of similar character beyond their control and without their fault or negligence.

21. Future Purchases – Bid Renewal

Unless otherwise noted, Roane County reserves the right to purchase goods or services for one year from the date of the award of the contract at the same price and terms and conditions. Further, Roane County reserves the right to renew all aspects of the bid one (1) year at a time for additional years in one (1) year increments as noted in the bid specifications. There is no guarantee that this contract will be considered for renewal.

22. Governing Law

This contract shall be governed by the laws of the State of Tennessee, and all obligations of the parties are performable in Roane County, Tennessee. The Courts in Roane County shall be exclusive and concurrent jurisdiction of any disputes which arise hereunder.

23. Indemnification and Insurance

- (A) The contractor will maintain, at their expense adequate insurance coverage to protect them from claims arising under the Worker's Compensation Act, from claims for damages resulting from bodily injuries and damage to their property, for Bodily Injury and Property Damage Liability in the amount of no less than \$1,000,000, for Products and Completed Operations Liability of no less than \$1,000,000 and from claims for damage to any Roane County property. Additional insurance requirements may be listed any Special Terms & Conditions or in the Bid Specifications. This insurance company shall have a Best's rating of A or better. Any deviations from the above requirements must be disclosed in the bid submission.
- (B) The successful bidder shall furnish a Certificate of Insurance issued by their insurance company showing that Roane County as an additional insured. Carrier will assume full common liability of all shipments.
- (C) Contractor shall indemnify, defend, save and hold harmless all departments of Roane County Government and/or Roane County Schools, its officers, agents and employees from all suits, claims, actions or damages of any nature brought because of, arising out of, or due to breach of the agreement by Contractor, its subcontractors, supplier, agents or employees or due to any negligent act or occurrence or any omission or commission of the contractor, its subcontractors, suppliers, agents or employees until the contract terminates.
- (D) The successful bidder is required to provide a Certificate of Insurance to the Purchasing Department naming Roane County as additional insured. The Certificate must be turned in to the Purchasing Department prior to contracts being signed or purchase order is issued. Complete certified copies of insurance policies shall be provided upon request. The contractor must maintain the insurance coverage required by while this contract is in force and shall provide documentation of such insurance in a form satisfactory to the Purchasing Department. Noncompliance may result in the contract being awarded to the next lowest responsive and responsible bidder.

24. Incurred Cost

Roane County will not be liable in any way for costs incurred by any bidder in the preparation and submission of its bid, nor for the participation in any required meetings, discussions, or negotiations.

25. Independent Contractor

Contractor shall acknowledge that it and its employees serve as independent contractors and that Roane County shall not be responsible for any payment, insurance, or incurred liability.

26. Inspection and Acceptance

The Contractor shall be responsible for all material or service until they are delivered and accepted. No material or service received by the Roane County pursuant to this contract shall be deemed accepted until Roane County has had reasonable opportunity to inspect said material or service. All material discovered to be defective or does not conform to any warranty of the seller herein, upon initial inspection or at any later time if the effects contained in the material were not reasonably ascertainable upon inspection, may be returned at the seller's expense for full credit or replacement. No goods returned as defective will be replaced without buyer's written authorization. Such return shall in no way affect Roane County discount privileges or exclude any other legal, equitable or contractual remedies the Roane County may have therefore been involved. Performance of services shall be completed to Roane County satisfaction.

27. Iran Divestment Act

By submission of this bid and the attached affidavit, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to Tennessee Code Annotated §12-12-106.

28. Invoices

Invoices shall be submitted to the Roane County Accounting Department, PO Box 643, Kingston, TN 37763. Invoices may also be submitted electronically to the Accounts Payable Clerk.

Pay requests for construction services must be authorized by the contractor, the engineer, and the county's representative on the project.

29. Late Bids

It is the responsibility of the bidder to deliver their bid or bid modification on or before the bid deadline date and time. Modifications cannot be made to the bid after the bid deadline. The time of record will be the date/time stamp Purchasing Department. Late bids will not be considered or returned. Bids are considered late if received after 2:00:00 p.m. on the bid opening date.

30. Limitations of Liability

In no event shall Roane County be liable for any indirect, incidental, consequential, special, or exemplary damages or lost profits, even if Roane County has been advised of the possibility of such damages.

31. Modification or Withdrawal of Bids

Bids may be modified or withdrawn by signed written notice to Roane County Purchasing Department or in person by an authorized vendor representative provided the modification or withdrawal is received prior to the bid deadline. A vendor representative making a modification in person shall have proper identification and shall initial the change. The vendor representative shall sign a receipt for the withdrawal of a bid. An electronic notice with an authorized signature would be acceptable for bid modification or withdrawal. It is the vendor's responsibility to confirm receipt of the modification or withdrawal. The electronic communications shall not reveal the bid price but shall provide the addition, subtraction or other modifications so that the final prices or terms will not be known by Roane County until the sealed bid is opened.

32. Non-Boycott of Israel Affidavit

Pursuant to Tennessee Code Annotated (TCA 12-4-1 et seq.), bidders are to affirm that they are in compliance with the Non-Boycott of Israel.

33. Non-Collusion

The requirements of State and Federal Antitrust Law, as well as the terms and conditions of this RFP, require that all decisions made as to matters concerning this Proposal be made on an individual firm basis. The Proposer certifies that no company employees, agents, or representatives colluded in any respect with any other person or firm as to the terms and conditions of the company's Proposal. This verification will be done by completing the attached form at the end of this document. Any concerted activity with respect to this Proposal will be reported to the Antitrust Division of the Office of the Attorney General, State of Tennessee.

34. Notification to County

If no Proposal is to be submitted in response to this RFP, it is not necessary to return the Invitation; however, notice should be given to the County if the recipient wishes to remain on Roane County vendor list for future solicitations.

35. Notice and Service Thereof

Any notice to any Contractor from Roane County relative to any part of this contract will be in writing and considered delivered and the service thereof complied when said notice is posted with said Contractor or his authorized representative.

36. Packaging

Roane County will not be liable for any charges for packaging, crating, carting, drayage, or storage in excess of the purchase price of this order unless stated otherwise herein.

37. Patents

The seller guarantees that the articles described herein and the sale or use of them will not infringe upon any U.S. or foreign patent and seller covenants that he will, at his own expense, defend every suit which may be brought against Roane County, or those selling or using Roane County product (provided seller is promptly notified of such suit and all papers therein are delivered to the seller) for any alleged infringement of any patent by reason of the sale or use of such articles and seller agrees that he will pay all costs, damages and profits recovered in any such suit. .

38. Preparation of Proposals

- (A) Proposers are expected to examine all Proposal documents. Failure to do so will be at the Proposer's risk.
- (B) Each Proposer shall furnish all information required by the Invitation. The Proposer shall sign the Invitation; erasures or other changes shall be initialed by the person signing the offer. Proposals that are submitted on forms other than the enclosed forms are subject to disqualification.
- (C) Unit price shall include freight unless otherwise specified in the Invitation. In case of discrepancy between any unit price and an extended price, the unit price shall govern.
- (D) Alternate proposals for supplies or services other than those specified will not be considered unless authorized by the Invitation.
- (E) Proposers must state a definite time for delivery of supplies or for performance of services unless otherwise specified in the Invitation.
- (F) Delivery time, when stated as a number of days, will include Saturdays, Sundays, and holidays.
- (G) Proposers are cautioned to check their Proposal for possible error. Errors discovered after public opening cannot be corrected and the Proposer will be required to honor their pricing or be subject to disqualification for award.

39. Protest Procedure

If a prospective vendor does not agree with the Proposal award, they have the right to protest. Disputes arising from the award of this Proposal must be submitted in writing to the Roane County Purchasing Department no later than seven (7) days from date of Proposal award. The steps for dispute resolution may include:

- (A) A meeting with the Purchasing Agent, the requisitioning department's manager and representatives from the disputing party to discuss and resolve the complaint.
- (B) Information from the aforementioned meeting will be forwarded to the County Attorney for review.
- (C) A written decision letter stating the reasons for the decision will be prepared by the Purchasing Agent and submitted in writing to the protestor and all parties involved.
- (D) Purchases will not be allowed under this procurement until a final decision is rendered.
- (E) In the event that purchases must be made before a final decision is rendered, the emergency purchase procedures will be used.

40. Provisions Required by Law Deemed Inserted

Each and every provision of law and clause required by law to be inserted in this contract will be deemed to be inserted herein and the contract will be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract will forthwith be physically amended to make such assertion or correction.

41. Public Information

The vendor understands that any material supplied to Roane County Purchasing Department in submitting this Proposal may be subject to public disclosure under the Tennessee Open Records Act, T.C.A. §§ 10-7-501 et seq.

42. Qualifications of Proposers

The Purchasing Department may make such investigations as are deemed necessary to determine the ability of the Proposer to perform the work and the Proposer shall furnish all such information and data for this purpose as may be requested. Roane County reserves the right to reject any Proposal if the evidence submitted by or investigation of such Proposer fails to satisfy the county that such Proposer is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

43. Quantities

Roane County assumes no obligation for articles or materials shipped in excess of the quantity ordered hereunder. Any unauthorized quantity is subject to rejection and return at seller's expense.

Roane County does not guarantee any purchase will be made as a result of this RFP; also, Roane County does not guarantee any minimum or maximum quantity that may be ordered based on the outcome of this RFP.

44. Records

The Contractor shall maintain documentation for all charges under this Contract. The books, records, and documents of the Contractor, insofar as they relate to work performed or money received under this Contract, shall be maintained for a period of three (3) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice from Roane County, the Comptroller of the Treasury, or their duly appointed representatives. The financial statements shall be prepared in accordance with generally accepted accounting principles.

45. Registration

Vendors are to register to be on the Roane County vendor list by going to the County's website at www.roanecountytn.gov. Select Purchasing Department and click on vendor registration. Vendors are responsible for keeping their information current.

46. Remedies

Roane County shall have all rights and remedies afforded under the U.C.C. and in State & Local laws in contract and in tort, including but not limited to, rejection of goods, rescission, right offset-off, refund, incidental, consequential and compensatory damages and reasonable attorney's fees.

47. Restrictive or Ambiguous Specifications

It is the responsibility of the Proposer to review the entire Request for Proposal document and to notify the Purchasing Agent if the Request for Proposal is formulated in a manner that would unnecessarily restrict competition or if it is ambiguous in what is being requested.

48. Right to Inspect

Roane County reserves the right to make periodic inspections of the manner and means the service is performed or the goods are supplied.

49. Subcontracts

The Proposer is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to and approved by Roane County.

50. Submissions of Proposals

- (A) Proposals shall be enclosed in a sealed envelope and addressed to the:

ROANE COUNTY PURCHASING DEPARTMENT
200 EAST RACE STREET, SUITE #3
KINGSTON, TN 37763

The name and address of the Proposer shall be identified on the face of the envelope along with the Proposal number and title. Proposals for construction projects exceeding \$25,000.00 must include the required Contractor license information on the face of the envelope per T.C.A. § 62-6-119.

- (B) Roane County does not accept proposals by facsimile or any electronic transmission. See Clause 28 under Terms and Conditions of the Invitation to Proposal regarding Proposal modifications or withdrawal.
- (C) Samples of items, when required, must be submitted within five (5) calendar days and at no expense to Roane County unless otherwise specified by the county. If not consumed by testing, samples will be returned at Proposer's request and expense unless otherwise specified in the RFP.

51. Termination of Contract

If the Contractor or any of his Sub-Contractors fails to perform or comply with any provision of this contract, Roane County may consider such failure or noncompliance a breach of contract and reserves the right to terminate the contract at any time, in whole or in part, in the sole judgment and discretion of the Purchasing Agent. Roane County expressly retains all its rights and remedies provided by law in case of such breach, and no action by ROANE COUNTY shall constitute a waiver of any such rights or remedies. If the contract is so terminated, the County may purchase, upon such terms and in such manner as the Purchasing Agent may deem appropriate, supplies or services similar to those so terminated and the Contractor will be liable for excess cost occasioned thereby. In the event the contract is terminated by Roane County for due cause, the vendor may be barred from proposing on Roane County contracts for a period of 12 months. The contract may be cancelled without cause by either party with the giving of written notice of no less than 30 calendar days. From this notice to the termination date to the Contractor.

CONTRACT TERMS AND CONDITIONS

1. Compliance with the requirements of Title VI of the Civil Rights Act of 1964, as amended, and the Rehabilitation Act of 1973, P.L. 93-112, as amended, and any relevant program-specific regulations, and shall not discriminate against any employee for employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition (including AIDS and AIDS- related conditions).
2. Compliance with the Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (42 U.S.C 3601 et. seq), which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability.
3. Compliance with Section 504 for the Rehabilitation Act of 1973, as amended (29 U.S.C 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance.
4. Compliance with the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 et. seq.), and Treasury's implementing regulations at 31 CFR Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance.
5. Compliance with Title II of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 CFR 26.101-36.999 inclusive, and any relevant program-specific regulations.
6. Compliance with Equal Opportunity in accordance with 41 CFR Chapter 60. During the performance of this contract, the contractor agrees as follows:
 - A. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - i. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - B. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - C. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
 - D. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - E. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
 - F. The contractor will furnish all information and reports required by Executive Order 11246 of September 24,

1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- G. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
 - H. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.
7. Compliance with Title 2 of the Code of Federal Regulations (CFR) and any guidance in effect from the Office of Management and Budget (OMB) related (but not limited to) audit requirements for grantees that expend \$750,000 or more in Federal awards during the grantee's fiscal year must have an annual audit prepared by an independent auditor in accordance with the terms and requirements of the appropriate circular.
 8. Certifications that the Contractor/Vendor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. This certification is made pursuant to regulations implementing Executive Order 12549, Department and Suspension, 28 C.F.R. pt. 67 §67.510, as published as pt. VII of May 26, 1988, Federal Register (pp. 19150-19211).
 9. Contractors must maintain an active registration in the System for Award Management (SAM).
 10. Compliance with 31 CFR Part 21 in regards to new restrictions on lobbying and assurance that no funding associated with this award will be used for lobbying. Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352- Contractor certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Contractor shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award.
 11. Compliance with the Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended is applicable to contracts and subcontracts amounts in excess of \$150,000. Contractors agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
 12. Disclosure of any existing or potential conflicts of interest relative to the performance of services resulting from this award.
 13. Provision has been made for compliance with Governmentwide Requirements for Drug-Free Workplace, 31 CFR Part 20.
 14. The Contractor will immediately inform the County if additional easements or right-of-way will be required. Any easements or right-of-way to be obtained for the project activities must be acquired with adherence to Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. §§ 4601-4655) and implementing regulations.

15. Compliance with the Contract Work Hours and Safety Standards Act ([40 U.S.C. 3701-3708](#)) is applicable on contracts awarded in excess of \$100,000 that involve mechanics or laborers. Under [40 U.S.C. 3702](#) of the Act, each contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
16. Audits and Inspection/Access to Records/Record Retention: The Contractor shall make records with respect to the project available to the Owner, U.S Department of Treasury, and authorized representatives for examination. The Contractor shall retain all documents, papers, and records which are directly pertinent to this Contract for a period of five (5) years following completion of the contracted work and expiration of the Contract.
17. There is domestic preference for certain procurements using federal funds. Contractor should, to the greatest extent practicable under a Federal award, purchase, acquire, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). For purposes of this section: 1. "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. 2. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.
18. When practicable, the Contractor should make effort to procure recovered or recycled materials for items that exceed \$10,000 such as those included in [40 CFR Part 247](#).
19. Any and all applicable permits will be obtained prior to any construction activity.
20. Any publications produced with funds from this award must display the following language:
 - A. "This project [is being] [was] supported, in whole or in part, by federal funds awarded to Roane County Government by the U.S. Department of the Treasury."
21. Roane County proposed uses of the funds provided as payment under ARPA will be used only to cover those costs that:
 - A. Are necessary investments in water or sewer infrastructure.
22. Roane County understands that any funds provided pursuant to this certification cannot be used for depositing funds into any pension fund.
23. Protections for Whistleblowers are in place in accordance with 41 U.S.C 4712.
24. Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Roane County encourages contractors to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company owned, rented, or personally owned vehicles.
25. Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Roane County encourages all employees, subrecipients, and contractors to adopt policies that ban text messaging while driving and discourage distracted driving.
26. Termination of Contract for Cause. If, through any cause, the contracted party shall fail to fulfill in timely and proper manner, his obligations under this Contract, or violate any of the covenants, agreements, or stipulations of this Contract, the Owner shall thereupon have the right to terminate this Contract by giving written notice to the Contracted Party of such termination and specifying the effective date of such termination. In such event, all finished or unfinished documents, data, studies, and reports prepared by the Contracted Party shall entitle the Contracted Party's receipt of just and equitable compensation for any satisfactory work completed on such documents.

Notwithstanding the above, the Contracted Party shall not be relieved of liability to the Owner for damages sustained or the Subgrantee by virtue of any breach of the Contract by the contracted party. The Owner may withhold any payments to the contracted party for the exact amount of damages due the Owner from the Contractor.

27. Termination for Contract for Convenience. The Owner may terminate this Contract any time by a notice in writing to the Contractor. If the Agreement is terminated by the Owner pursuant to the terms hereof, the contracted party will be paid an amount, which bears the same ratio to the total compensation as the services actually performed. Bear to the total services of the contracted party covered by this Contract, less payments of compensation previously made upon the effective date of such termination. The contracted party may be reimbursed (in addition to the above payment) for that portion of actual out-of-pocket expenses (not otherwise reimbursed under this Contract) incurred by the contracted party during the contract period, which are directly attributable to the incomplete portion of the services covered by this Contract.

Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable. All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be affected and the basis for settlement.

Equal Employment Opportunity. Except as otherwise provided under [41 CFR Part 60](#), all contracts that meet the definition of “federally assisted construction contract” in [41 CFR Part 60-1.360-1.3](#) must include the equal opportunity clause provided under [41 CFR 60-1.4\(b\)60-1.4\(b\)](#), in accordance with [Executive Order 11246](#), “Equal Employment Opportunity” ([30 FR 12319](#), 12935, [3 CFR Part, 1964-1965 Comp.](#), p. 339), as amended by [Executive Order 11375](#), “Amending [Executive Order 11246](#) Relating to Equal Employment Opportunity,” and implementing regulations at [41 CFR part 60](#), “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under [37 CFR § 401.2](#) (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

Clean Air Act ([42 U.S.C. 7401- 7671q 7401-7671q](#).) and the Federal Water Pollution Control Act ([33 U.S.C. 1251- 1387 1251-1387](#)), as amended - Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401- 7671q 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251- 1387 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

CFR 200 Appendix 11 (1); Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)- Contractors that apply or Proposal for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay and person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosure are forwarded from tier to tier up to the non-Federal award.

Copeland Anti-Kickback Act – 40 U.S.C. 3145 The Copeland (Anti-Kickback) Act ([18 U.S.C. 874](#) and [40 U.S.C. 3145](#)) makes it unlawful to induce, by force, intimidation, threat of procuring dismissal from employment, or otherwise, any person employed in the construction or repair of public buildings or public works, financed in whole or in part by the United States, to give up any part of the compensation to which that person is entitled under a contract of employment.

Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the **Energy Policy and Conservation Act (42 U.S.C. 6201)**.

Debarment and Suspension (Executive Orders 12549 and 12689) - A contract award (see [2 CFR 180.220](#)) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 ([3 CFR part 1986 Comp.](#), p. 189) and 12689 ([3 CFR part 1989 Comp.](#), p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than [Executive Order 12549](#).

Davis-Bacon Act – Act – ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) If required, in accordance with the statute, the Contractor shall pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, the Contractor agrees to pay wages not less than once a week.

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). If this sub-contract is for \$100,000 or more, sub-contractor affirms and certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any federal or state agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal or State contract, grant or any other award covered by [31 U.S.C. 1352](#).

EPA’s Solid Waste Disposal Act (2 C.F.R. § 200.323) Procurement of recovered materials (pursuant to section 6002).

Prohibition on certain telecommunications and video surveillance services or equipment ([2 C.F.R. § 200.216](#)).

Domestic preferences for procurements ([2 C.F.R. § 200.322](#)).

Encouraging Small and Minority Owned Businesses-To encourage business activity and ensure maximum full and open competition, efforts must be taken to solicit participation by minority firms, women's business enterprises, labor surplus area businesses, and minority owned businesses in procurements. It is the intent of Roane County School's Department of School Nutrition to involve and utilize the best product/services at the best prices and to provide small and minority firms, women's business enterprises and labor-surplus area firms with solicitation whenever they are possible sources.

It is the intent of Roane County to involve and provide small and minority firms, women's business enterprises and labor surplus area firms with increased opportunities to do business with the county. However, currently there are no set asides for small or minority firms.

NON-DISCRIMINATION, NON-DEBARMENT & LOBBYING AFFIDAVIT

I do hereby certify that this bid/quote/proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid/quote/proposal for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud.

I understand that collusive pricing is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards and that no collusion with another firm was used in preparation of this bid/quote/proposal.

I also certify that this firm does not discriminate against any employee or applicant for employment on the grounds of race, color, national origin or sex; and does not and will not maintain or provide for his employees any segregated facilities at any of its establishments, and further, that the firm does not and will not permit their employees to perform their services at any location under this contract where segregated facilities are maintained.

By submission of this bid/quote/proposal and the supplier certifies that neither it or its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State department or agency.

I further certify that during the bid/quote/proposal solicitation and/or during the performance of this contract that neither it nor its principals will participate in lobbying activities in conjunction with this project.

I agree to abide by all terms and conditions of this bid/quote/proposal and certify that I am authorized to sign this affidavit for the supplier.

IRAN DIVESTMENT ACT COMPLIANCE

The Iran Divestment Act of 2016, effective on July 1, 2016, is codified in Tennessee Code Annotated §12-12-101 *et seq.* The Iran Divestment Act, with certain exceptions, prohibits local governments from entering into contracts with persons or entities engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in Tennessee Code Annotated §12-12-105, a person engages in investment activities in the energy sector of Iran if:

- 1) The person provides goods or services of twenty million dollars (\$20,000,000) or more in the energy sector of Iran, including a person that provides oil or liquified natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or
- 2) The person is a financial institution that extends twenty million dollars (\$20,000,000) or more in credit to another person, for forty-five (45) days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list, created pursuant to §12-12-106, as a person engaging in investment activities in Iran as described in this section.

This Act requires the State of Tennessee's chief procurement officer to publish on the State's website a list of persons it determines engaged in investments activities in Iran (the "Prohibited Entities List").

Any supplier that is on the Prohibited Entities List will be ineligible to contract with the County.

Pursuant to the Act, any supplier that attempts to contract with the County must certify, at the time the bid/quote/proposal is submitted, that the supplier is not identified on the Prohibited Entities List. A bid/quote/proposal shall not be considered for award, nor shall any award be made where the supplier fails to submit a signed and verified compliance certification form.

NON-BOYCOTT OF ISRAEL AFFIDAVIT

Concerning the Non-Boycott of Israel Act (TCA 12-4-1 *et seq.*), by submission of this bid/quote/proposal, each supplier and each person signing on behalf of any supplier certifies, and in the case of a joint bid/quote/proposal, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each supplier is not boycotting Israel pursuant to TCA §12-4-1 *et seq.* and will not during the term of any award. Note: Applicable only to contracts of \$250,000 or more and to suppliers with 10 or more employees.

VENDOR INFORMATION

Please type/print clearly in ink – no erasable writing instrument.

Company Name:		
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		
Phone Number(s):	Fax Number:	
Email address:		
Remit To Address (if different from above):		
City:	State:	Zip Code:
Accounts Receivable Contact Person:		
Phone Number(s):	Fax Number:	
Email address:		
Number of years in business:		
Business License Number:	State:	

SIGNATORY AUTHORITY

Company Official authorized to sign contracts:	
Company Name:	
Authorized Signature:	Printed Name:
Title:	Date:
Email Address:	

Acknowledgement of Receipt of Addenda

If addenda were issued, please acknowledge the receipt of: (please check mark if you received one)

Addendum 1 _____ Addendum 2 _____ Addendum 3 _____ Addendum 4 _____

Prompt Pay Discount

If applicable, please indicate below if discounts will be allowed for prompt payment or if there is no discount offered:

_____ % Net 10 Days _____ & Net 20 Days _____ % Net 30 Days _____ No Discount

DRUG-FREE WORKPLACE AFFIDAVIT

STATE OF _____

COUNTY OF _____

The undersigned, principal officer of _____, an employer of five (5) or more employees contracting with Roane County Government to provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of _____ (hereinafter referred to as the "Company"), and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9, of the *Tennessee Code Annotated*.
3. The Company is in compliance with T.C.A. § 50-9-113.

Further affiant saith not.

Principal Officer

STATE OF _____

COUNTY OF _____

Before me personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and seal at office this _____ day of _____, 20_____.

Notary Public

My commission expires _____.

THIS FORM MUST BE COMPLETELY FILLED OUT, SIGNED & NOTARIZED, & RETURNED IN YOUR BID.

**STATEMENT OF COMPLIANCE CERTIFICATE
ILLEGAL IMMIGRANTS**

EACH CONTRACTOR BIDDING SHALL FILL IN AND SIGN THE FOLLOWING

This is to certify that _____ have fully complied with all the requirements of Chapter No. 878 (House Bill No. 111 and Senate Bill No. 411) which serves to amend Tennessee Code Annotated Title 12, Chapter 4, Part I, attached herein for reference.

- All Bidders for construction services on this project shall be required to submit an affidavit (by executing this compliance document) as part of their bid that attests that such Bidder shall comply with requirements of Chapter no. 878.

Signed: _____

State of _____)
County of _____) ss

Personally appeared before me, _____ the undersigned Notary Public, _____, the within named bargain or, with whom I am personally acquainted, and known to me to be the President / Owner / Partner (as applicable) of the _____, Corporation, Partnership, Sole Proprietorship (as applicable) and acknowledged to me that he executed the foregoing document for the purposes recited therein.

Witness my hand, at office, this _____ day of _____, 20__.

Notary Public

My commission expires _____

THIS FORM MUST BE COMPLETELY FILLED OUT, SIGNED & NOTARIZED, & RETURNED IN YOUR BID.

REGULATION COMPLIANCE AFFIDAVIT

As the authorized representative for _____, I hereby certify that the contract for goods and/or services in conjunction with this bid/quote/proposal and subsequent contract(s) does adhere to all federal, state, and local laws included but not limited to the requirements contained herein.

The undersigned affirms that he/she has legal authority to swear this on behalf of the aforementioned supplier and that each person signing on behalf of any supplier certifies, and in the case of a joint bid/quote/proposal, each party thereto certifies as to its own organization, and that each supplier is not in any manner in violation any of the State of Tennessee Iran Divestment Act (Tennessee Code Annotated §12-12-101 to §12-12-106), the Non-Boycott of Israel Affidavit (Tennessee Code Annotated §12-4-1 et seq.) and is in compliance with the Non-Discrimination, Independent Price Determination, Non-Discrimination, Non-Debarment & Lobbying affidavit.

By submission to this bid/quote/proposal, each supplier and each person signing on behalf of any supplier certifies, and in the case of a joint bid/quote/proposal that each party thereto certifies as to its own organization, under penalty of perjury that to the best of his/her knowledge and belief that each vendor is in compliance.

By: _____

Title: _____

Sworn to and subscribed before me, a Notary Public, this _____ day of _____ 20____.

Notary _____ My Commission Expires _____

Please indicate which of the following apply to your company. This information is requested for information purposes only. Roane County currently has no policy that allows for set asides or preferences for woman owned or minority owned businesses.

- _____ African American Owned
- _____ Caucasian Owned
- _____ Native American Owned
- _____ Other Owned

- _____ Asian Owned
- _____ Hispanic Owned
- _____ Woman Owned

BID ENVELOPE COVER

Project: TOILET RENOVATIONS FOR: ROANE COUNTY SCHOOLS

Oliver Springs Academy
317 Roane Street
Oliver Springs, TN 37840

Midtown Elementary School
2830 Roane State Highway
Harriman, TN 37748

Bid Date & Time: Thursday, June 22, 2023
2:00:00 p.m. (Eastern Time Zone)

Bids must be delivered prior to the aforementioned date to:

Roane County Purchasing
200 East Race Street
Suite #3
Kingston, Tennessee 37763

Bidder Name & Address: _____ _____ _____
TN License Number: _____ Limit: _____
Expiration Date: _____ Classification: _____

DOCUMENT 00 21 13 - INSTRUCTIONS TO BIDDERS

General Conditions: AIA A701 - 2018 edition

Project:

Toilet Renovations for: Roane County Schools
Roane County, TN

Project Locations:

Midtown Elementary School
2830 Roane State Highway
Harriman, Tn 37748

Oliver Springs Academy
317 Roane Street
Oliver Springs, Tennessee 37840

Owner:

Roane County Schools
105 Bluff Road
Kingston, Tennessee 37763

Designer:

Lewis Group Architects, Inc.
6512 Deane Hill Drive
Knoxville, TN 37919

2.1.5 The Bidder shall only obtain services from the sub-contractors/vendors in the approved vendors list below:

3.3.2.1 Requests for substitutions will only be considered when submitted by a General Contractor bidding the project, prior to receipt of bids.

7.1.1.1 Provide Performance and Payment Bonds for the full amount of the Contract.

END OF DOCUMENT

DOCUMENT 00 41 00 - BID FORM

TO: Roane County Purchasing Department 200
East Race Street, Suite #3, Kingston, TN 37763

FOR: TOILET RENOVATIONS FOR: ROANE COUNTY SCHOOLS

Midtown Elementary School
2830 Roane State Highway
Harriman, TN 37748

Oliver Springs Academy
317 Roane Street
Oliver Springs, TN 37840

Pursuant to and in compliance with the Invitation to Bid, the Instructions to Bidders, and other documents relating thereto, the undersigned hereby proposes to furnish all labor and materials and perform all work complete for the construction of "Toilet Renovations for: Roane County Schools" as required by and in strict conformance with the Contract Documents consisting of the Drawings, the Project Manual, and,

Addendum No. ___ dated _____ Addendum No. ___ dated _____
Addendum No. ___ dated _____ Addendum No. ___ dated _____
Addendum No. ___ dated _____ Addendum No. ___ dated _____

In submitting this bid the Bidders acknowledge that they have received, read, and understand the bid documents, have visited the site, and become familiar with conditions under which work will be performed, have correlated observations with requirements of Bid Documents, and make this bid in accordance therewith.

In submitting the Bid, the Bidder agrees to:

1. Honor this bid for 30 days from date of bid opening.
2. Enter into and execute a contract if presented on the basis of this bid and furnish certificate(s) of insurance, bonds and other documents related to the contract as required by the Bidding Documents.
3. Accomplish work in accordance with the Contract Documents.

- 4. Perform additional work by Change Order under the terms of the contract using the actual cost of the work plus ten percent (10%) for overhead and five percent (5%) for profit.
- 5. Achieve Substantial Completion of the Work within _____ (by contractor) calendar days from and including the date stipulated in the Notice to Proceed; and, accept the conditions for Liquidated Damages in the amount of Five Hundred Dollars (\$500.00) per calendar day. Owner prefers the work to be complete by August 01, 2023.

Complete the Work of the Base Bid for this project for the Lump Sum of:

BASE BID: _____ and _____ /100ths Dollars
(Amount shown in both words and figures)

\$ _____

Calendar Days: _____

NAME OF FIRM _____

SIGNED BY _____

NAME: _____ TITLE _____

BIDDER'S ADDRESS _____
STREET

CITY _____ STATE _____ ZIPCODE _____

TELEPHONE _____

CONTRACTOR'S LICENSE NO: _____ Dollar Limit: _____

EXPIRATION DATE: ____/____/____
MM / DD / YYYY

END OF DOCUMENT

DOCUMENT 00 61 13 - PERFORMANCE AND PAYMENT BOND FORM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The Performance Bond shall be the "Performance Bond", A.I.A. Document A312, 2010 Edition, will be the form used for this project.
- B. The Payment Bond shall be the "Payment Bond", A.I.A. Document A312, 2010 Edition, will be the form used for this project.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF DOCUMENT

SECTION 00 72 00 - GENERAL CONDITIONS

PART 1 - GENERAL

1.1 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

- A. The Conditions of the Contract shall be the General Conditions of the Contract for Construction, AIA Document A201, 2017 Edition, as follows.
- B. The General Conditions are amended by the Supplementary Conditions, Section 00 73 00 of the Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 00 73 00 - SUPPLEMENTARY CONDITIONS

The following supplements modify AIA Document A201-2017 General Conditions of the Contract for Construction. Where a portion of the General Conditions modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

1.1.4 THE PROJECT

- A. Add Sub-paragraphs 1.1.4,a and 1.1.4,b as follows:

1.1.4, a - The Contractor and its subcontractors and vendors have examined carefully the various conditions and limitations under which the work is to be performed including, but not limited to (1) the location, conditions, character and arrangement of the site, its environs, and contiguous properties thereto; (2) availability and competence of labor required to properly complete the work; (3) weather conditions, climatic range and precipitation generally prevailing in the region and immediate vicinity of the site; (4) availability and cost of materials, tools, equipment and resources necessary to properly complete the work; and (5) other similar matters.

1.1.4, b - Neither Owner nor Architect assumes any responsibility or liability for the above listed matters or other similar issues related thereto, nor any responsibility or liability for safety of the site, work, workplace, property, or persons, these being the sole responsibility of the Contractor.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

- A. Add Subparagraphs 1.2.4, 1.2.5 and 1.2.6 as follows:

- 1.2.4 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:
1. Modifications
 2. The Agreement.
 3. Addenda, with those of later date having precedence over those of earlier date.
 4. The Supplementary Conditions.
 5. The General Conditions of the Contract for Construction.
 6. Division 1 of the Specifications
 7. Drawings and Divisions 2 through 49 of the Specifications.
 8. Other documents specifically enumerated in the Agreement as Part of the Contract Documents

In case of conflicts or discrepancies between drawings and Divisions 2-49 of the Specifications or within or among the Contract Documents and not clarified by Addendum, the Architect will determine which takes precedence in accordance with Sections 4.2.11, 4.2.12 and 4.2.13.

- 1.2.5 If there is any conflict or discrepancy within or between any of the Contract Documents involving the quality or quantity or work required, it is the intention of the Contract that the work of highest quality or greatest quantity shown or specified shall be furnished, unless such conflict or discrepancy shall have been brought to the Architect's attention and clarified by Addendum prior to the opening of bids.
- 1.2.6 Whether or not the word "ALL" is used in the specifications, coverage is intended to be complete, except where partial coverage is specifically and expressly noted. In all cases where an item is referred to in the singular number, it is intended that the reference shall apply to as many such items as are required to complete the work. Words such as "Install", "Provide", "Furnish", and "Supply" shall be construed as meaning complete furnishing, installing and constructing unless modified by additional information.

ARTICLE 2 - OWNER

2.3 INFORMATION AND SERVICES REQUIRED OF THE OWNER

- A. Delete Subparagraph 2.3.6 and substitute the following:

2.3.6 The Owner shall furnish the Contract Documents to the Contractor in digital Format.

If the Contractor requires paper documents, the Contractor shall be responsible for the costs of producing such paper documents.

- A. Add new paragraph 2.6 and subparagraph 2.6.1 as follows:

2.6 OWNER RESPONSIBILITY

2.6.1 The Owner shall have no responsibility for, nor control of supervision, schedules, means, methods, techniques, sequences, procedures, or coordination of any portion of the work under this contract.

ARTICLE 3 - CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENT FIELD CONDITIONS BY CONTRACTOR

- A. Add new subparagraph 3.2.1.1 as follows:

3.2.1.1 Should discrepancies or conflicts in the requirements of the Drawings and Specifications be discovered after the work has started, the Contractor shall report such discrepancies or conflicts to the Architect immediately and no work affected thereby shall be started, or if started, shall be stopped immediately until the Contractor and the Architect agree upon clarification of the discrepancy or conflict.

- B. Add new subparagraphs 3.2.2.1 and 3.2.2.2 as follows:

- 3.2.2.1 Neither Owner nor Architect warrants the accuracy of grades, elevations, dimensions, clearances, or locations indicated on the drawings issued by the Architect, nor for work installed by separate contractors.
 - 3.2.2.2 The Contractor shall verify the accuracy of all such grades, elevations, dimensions, clearances, and locations to its satisfaction. Dimensions of existing or other work at the site shall be verified by the Contractor for connection of work under this contract. Failure of the Contractor to verify grades, elevations, dimensions, clearances, or locations resulting in errors in the work shall be the sole responsibility of the Contractor and corrected at no additional cost to the Owner.
 - 3.2.5 The Owner is entitled to reimbursement from the Contractor for amounts paid to the Architect for evaluating and responding to the Contractor's request for information that are not prepared in accordance with the Contract Documents or where the requested information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, or owner provided information, Contractor -prepared coordination drawing or prior Project correspondence or documentation.
- C. Add new subparagraph 3.2.5 as follows:
- 3.2.5 No verbal agreement or conversation with any officer, representative, agent, or employee, of the Owner or Architect either before or after the execution of this contract shall affect or modify the terms or obligations herein contained.

3.4 LABOR AND MATERIALS

- A. Add the new subparagraph 3.4.4 as follows:

- 3.4.4 The standards of the work required throughout shall be of such grade as will bring results of the first class only. All material permanently installed in the project shall be new unless otherwise specified or approved by the Architect. New materials shall have been recently manufactured and shall not be obsolete or untested.

3.7 PERMITS, FEES AND NOTICES AND COMPLIANCE WITH LAWS

- A. Add the following new subparagraphs 3.7.6 and 3.7.7:

- 3.7.6 The Contractor shall pay for all fees and for all damages to sidewalks, streets, or other public or private property, or to any public utilities.
- 3.7.7 The Contractor shall secure all certificates of inspection and of occupancy required by authorities having jurisdiction over the work. These shall be delivered to the Architect upon completion of the work.

ARTICLE 5 - SUBCONTRACTORS

5.3 SUBCONTRACTURAL RELATIONS

A. Add subparagraphs 5.3.1 and 5.3.2 as follows:

- 5.3.1 The Contractor shall be directly responsible for all the work included in the Contract, whether performed by his own forces or by his subcontractors. Except in extreme emergencies, all instructions, clarifications and approvals will be given by the Architect to subcontractors only through the Contractor and all shop drawings, samples, and correspondence from the subcontractor shall be submitted to the Architect through the Contractor.
- 5.3.2 Insofar as it does not affect the quality of workmanship or materials, the Contractor shall settle all questions of responsibility arising among his various subcontractors and shall determine the extent of work and responsibility of each of the subcontractors.

ARTICLE 8 - TIME

8.1 DEFINITIONS

A. Replace subparagraph 8.1.2 with the following:

- 8.1.2 The date of commencement of the work shall be specified in the written "Notice to Proceed."

8.3 DELAYS AND EXTENSIONS OF TIME

A. Add the following to the end of subparagraph 8.3.2:

. . . Except that neither the Owner nor the Architect shall be obligated or liable to the Contractor for, and the Contractor hereby expressly waives any claims against the Owner and the Architect on account of any damages, costs, or expenses of any nature which the Contractor, its subcontractors, or sub-subcontractors or any other person may incur as a result of any delays, interferences, suspensions, changes in sequence or the like arising from or out of any act or omission of the Owner or the Architect, it being understood and agreed that the Contractor's sole and exclusive remedy in such event shall be an extension of the contract time, but only in accordance with the provisions of the contract documents.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.3 APPLICATIONS FOR PAYMENT

B. Add new subparagraph 9.3.1.3 as follows:

- 9.3.1.3 Progress payments may be requested monthly and shall be for 95% of the approved amount properly allocable to materials and equipment incorporated in the work and materials covered with applicable insurance and suitably stored in an approved location on the date of the request.

C. Add new subparagraphs 9.3.2.1 and 9.3.2.2 as follows:

- 9.3.2.1 The Owner and the Architect reserve the right to request additional information including but not limited to, invoices for materials stored. Furnish a separate certificate of insurance covering full value of any material stored off site and subsequent transportation to the job site. Owner shall be named insured on the certificate of insurance.
- 9.3.2.2 Where circumstances indicate that the Owner's best interest is served by off-site storage, the Contractor shall make written request to the Architect for approval to include such material costs in his next progress payment. The Contractor's request shall meet the following Off-Site Stored Material Requirements:
1. All materials must be stored in a secure bonded warehouse within the State of Tennessee.
 2. Provide evidence of insurance on all stored materials.
 3. Certification that all stored materials have been inventoried, clearly identified as property of the Owner, and tagged for delivery to the project.
 4. Provide a properly executed, recorded Uniform Commercial Code (UCC) financing statement.
 5. A letter from the bonding company indicating agreement to the arrangements and that payment to the Contractor shall not relieve either party from their responsibility to complete the project
 6. Materials having architectural finishes must be inspected and accepted by the Architect. The Contractor making the request shall pay cost incurred by the Architect to inspect material in off-site storage.
 7. Requests for payment of material stored off-site requires 30 days prior approval of the Owner.
 8. The requirements indicated above must be met before payment will be approved for materials stored off-site.

E. Add the following new subparagraph 9.3.3:

- 9.3.4 Contractor further warrants that all payments to subcontractors and suppliers due and payable have been or will be paid in strict accordance with all laws and regulations governing such payments. Failure by the Contractor shall result in sufficient funds being withheld from current or future applications. Such failure of contractor when properly substantiated shall be brought to the attention of the Surety.

9.6 PROGRESS PAYMENTS

A. Replace subparagraph 9.6.1 with the following:

- 9.6.1 Unless otherwise provided in the agreement, the Owner will make progress payments to the Contractor on the basis of a duly certified and approved estimate of the work performed submitted to the Owner by the 1st day of each month for the preceding calendar month. In preparing estimates, materials delivered to and properly stored on the site shall be given consideration. Materials stored off-site shall not be paid for by the Owner unless the Contractor furnishes a certificate for that material showing the Owner as the Owner of said material and a Certificate of Insurance in the

name of the Owner providing all-risk insurance coverage in an amount which will adequately protect the Owner's interest relative to all materials stored off-site. The Contractor shall remain responsible for the protection of the material and shall ensure the replacement of any damaged or lost material until project closeout.

9.10 FINAL COMPLETION AND FINAL PAYMENT

- A. Revise first sentence of subparagraph 9.10.1, to read:

The Architect and Owner will promptly make such inspection and, when the Architect and Owner finds . . .

- B. In subparagraph 9.10.2, change "and (5)" to read "and (6)", and add a new clause (5) as follows:

(5) all certificates of occupancy required by the contract documents and authorities having jurisdiction, . . .

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.2 SAFETY OF PERSONS AND PROPERTY

- A. Add the following to the end of subparagraph 10.2.3:

The Contractor shall be solely responsible, at its own expense, for all necessary measures to protect adjacent properties from damage. Adjacent properties that are damaged by acts or omission of the Contractor shall be promptly repaired by the Contractor at its expense and at no additional cost to the Owner.

ARTICLE 11 - INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

- A. Subparagraph 11.1.1, Revise the second sentence after the word "an" to read as follows:

...licensed to do business the State of Tennessee, and to which the Owner has no reasonable objections...

- B. Add new subparagraphs 11.1.2.1, 11.1.2.2, and 11.1.2.3 as follows:

11.1.2.1 The insurance required by subparagraph 11.1.1 shall be written for not less than the following limits, or greater if required by law.

- a. Workmen's Compensation
 1. State: Statutory
 2. Employer's Liability: \$500,000 / \$500,000 / \$500,000
- b. Comprehensive General Liability (including Premises-Operations; Independent Contractor's Protective; Products and Completed Operations; Personal Injury and Contractual Liability).

1. Bodily Injury
Each Occurrence: \$2,000,000.00
Annual Aggregate:\$2,000,000.00
- c. Personal Injury with Employment Exclusion Deleted
 1. Annual Aggregate:\$500,000.00
- d. Comprehensive Automobile Liability (including Owned, Hired and Non-Owned)
 1. Bodily Injury and Property Damage Combined: \$500,000.00
- e. Umbrella Liability: \$1,000,000.00

11.1.2.2 The Contractor shall furnish certificate(s) of the insurance, which shall contain thirty (30) days prior written notice to the Owner of cancellation or of material change in the insurance.

11.1.2.3 All policies insuring the Contractor and subcontractors pursuant to paragraphs 11.1.2, and all subparagraphs, shall be endorsed to include, as additional insured, both the Owner and Architect.

C. Add new sentence after the second sentence in subparagraph 11.1.3 as follows:

. . . Owner. The words "endeavor to" and "but failure to" are to be eliminated from the notice of cancellation provisions on standard accord certificates. If any . . .

D. Add new subparagraph 11.1.3.1 as follows:

11.1.3.1 The Contractor shall furnish one copy of each certificates of insurance herein required for each copy of the agreement which shall specifically set forth evidence of all coverage required by subparagraphs 11.1.1, 11.1.2, and 11.1.3. The form of the certificate shall be AIA Document G705, Certificate of Insurance, or a form equal to it in completeness. The Owner and the Architect shall be named additional insured on all policies except workmen's compensation and automobile liability policies. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.2 CORRECTION OF WORK

A, Add new subparagraph 12.2.5.1 as follows:

12.2.2.4 Upon request by the Owner and prior to the expiration of one year from the date of Substantial Completion, the Architect will conduct and the Contractor shall attend , a meeting with the Owner to review the facility operations and performance.

A. Add new subparagraph 12.2.5.1 as follows:

12.2.5.1 Guarantee, and warranty requirements shall extend to correction, without cost to the Owner, of all work found to be defective or non-conforming to be

the contract documents. The Contractor shall bear the cost of correcting all damage resulting from such defects or non-conformance with contract documents exclusive of repairs required as a result of improper maintenance or operation, or of normal wear.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

- A. Add the following new paragraph 13.6 and subparagraphs 13.6.1, 13.6.1.1 and 13.6.1.2 as follows:

13.6 EQUAL OPPORTUNITY

13.6.1 The Contractor shall maintain policies of employment as follows:

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

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

END OF DOCUMENT

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish all labor, materials, and equipment, and perform all work for the improvements as specified herein and shown on the accompanying drawings.
- B. Verbal Summary: Without force and effect on requirements of the contract documents the description of the work of the Contract can be summarized as follows:
 - 1. Project Name is Roane County Schools Toilet Renovations. Roane County Tennessee,
 - 2. Generally, the Work consists of:
 - a. Minor selective demolition that includes removal concrete floor,
 - b. Interior CMU partitions.
- C. New work included
 - 1. Interior painting, including dryfall ceiling
 - 2. Replacing solid core wood doors
 - 3. Porcelain tile floor and wall tile
 - 4. Phenolic toilet compartments
 - 5. Perimeter fire safing
 - 6. Transitions from resilient floor to ceramic tile
 - 7. Toilet fixtures include commodes, wall mounted urinals
 - 8. Toilet accessories include floor mounted manual flush,
 - 9. Mechanical, plumbing, and electrical lighting work throughout as conveyed in the Drawings.
- D. Provide selective demolition of the existing structure as indicated, construct new addition, and repair and replace adjacent surface finishes as described in the plans.
- E. Pay fees related to the work, including, but not limited to, tap fees, permit fees, plan review fees, and other fees required by authorities having jurisdiction.
- F. Contract documents indicate the work of the contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include but are not necessarily limited to the following:
 - 1. Work to be performed concurrently by the Owner and / or under separate contract, if any.
- G. Summary by reference: The work for the General Construction Contract can be summarized by reference to the requirements of the various contract documents, which in turn make reference to the requirements of the other applicable provisions which control or influence the work; and these references can be summarized but are not necessarily limited to the following:

1. The executed Owner-Contractor Agreement (not bound herewith).
2. The General and Supplementary Conditions references, which are bound herewith.
3. The Drawings, which are listed in the "List of Contract Drawings" as of the date of these contract documents and bound herewith (in this Project Manual).
4. The Specification Sections, which are bound wherewith and are listed in the "Table of Contents" bound herewith (in this Project Manual).
5. The Addenda and Modifications to the Contract Documents, which have either been bound herewith (in this Project Manual) or distributed by transmittal subsequent to the binding hereof.
6. Governing regulations, which have a bearing on the performance of the work; copies can be obtained from or reviewed at the local, State, or Federal Agency responsible for the regulation in each case.
7. Submittals (of every kind), copies of which are retained by the Contractor at the site.
8. Miscellaneous elements of information having a bearing on the performance of the work, such as weather forecasts and reports of general trade negotiations; copies must be obtained by the Contractor through normal channels of information.

1.2 CONTRACTOR'S USE OF PREMISES

- A. Before construction is started the Sub-Contractors shall confer with the Architect, and the Owner and arrange for available trucking and storage space for the delivery of materials, storage space for materials and equipment and parking space for his workmen.
- B. Construction operations and storage of materials and equipment shall be restricted to areas of the site mutually agreed upon and in such a manner as not to block access of firefighting equipment to the building and facilities.
- C. Coordinate work activities so as not to interfere with existing adjacent tenants and access for deliveries and other services.

1.3 DRAWINGS AND SPECIFICATIONS

- A. The intent of the Drawings and Specifications is to provide the Owner with complete, usable facilities, as specified and as indicated on the Drawings. Where items are shown on the Drawings and not included in the specifications, for the purpose of this contract, these items shall be considered as also being included in the specifications. Where items are included in the specifications and not shown on the Drawings, for the purpose of this contract, these items shall be considered as also being included in the Drawings.
 1. Where conflict occurs between items specified and items shown on the Plans the Contractor shall contact the Architect for a clarification.
 2. Where there is a conflict between "Contract Documents" the Contractor is responsible for the greater in quality or quantity.

1.4 VERIFICATION OF DIMENSIONS

- A. Dimensions, elevations, and locations shown on the drawings in reference to existing structures and utilities are the best available data obtainable but are not guaranteed by the Architect or the Owner and neither the Architect nor the Owner shall be responsible for their accuracy.
- B. Before proceeding with any work dependent upon the data involved, the Contractor shall field check and verify all dimensions, grades, line levels or other conditions of limitations at the site and building to avoid construction errors. If any work is performed by the Contractor or by his Subcontractors prior to adequate verification of applicable data, any resultant extra cost for adjustment of work to conform to existing limitations shall be borne by the Contractor without reimbursement or compensation by the Owner.

1.5 CONTROL POINTS AND LAYOUT

- A. The initial lines, grades, and dimensions necessary for the location and control of the work under the Contract are shown on the Contract Drawings.
- B. The Contractor shall provide for himself all additional and supplementary lines and grades may be necessary to layout the work and ensure proper control of the work until completed. It shall be the Contractors responsibility to satisfy himself as to the accuracy of all measurements before construction.

1.6 SUBSTANTIAL COMPLETION OF THE WORK

- A. Upon substantial completion, payments for work in the substantially complete portion of the work shall be released to the Contractor, except for the retainage and an amount to cover the cost of the incomplete or deficient items included in the punch list made at the inspection to determine substantial completion. This amount shall be approximately the value of the punch list items as estimated by the Architect.

1.7 BUILDING PRODUCTS USE

- A. It is the responsibility of the Contractor to inform himself concerning the application of the products he uses and to follow the directions of the Architect and manufacturer.
- B. In the event of disagreement between the Contract Documents and the manufacturer's directions, the Contractor will obtain written instructions from the Architect before proceeding with the installation.
- C. If the Contractor has knowledge of or reason to believe the likelihood of failure, he will transmit such knowledge to the Architect, and ask for written instructions before proceeding with the work.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 26 00 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 01 Section "Substitutions" for administrative procedures for handling requests for substitutions made after Contract award.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions.

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within **20 days** after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed

change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

C. Proposal Request Form: Use AIA Document G709 for Proposal Requests.

1.4 CHANGE ORDER PROCEDURES

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

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect [may issue a [Construction] Change Directive on AIA Document G714 Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Application and Certification for Payment.
- B. Section specifies administrative and procedural requirements governing each prime Contractor's Application and Certification for Payment.
 - 1. Coordinate the Schedule of Values and Application and Certification for Payment with the Contractor's Construction Schedule, List of Subcontracts, and Submittal Schedule.
- C. Related sections.
 - 1. Division 01 Section "Submittals Procedures" for the Contractor's Construction Schedule and Submittal Schedule.

1.2 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
- B. Each prime Contractor shall coordinate preparation of its Schedule of Values for its part of the Work with preparation of the Contractors' Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's construction schedule.
 - b. Application and Certification for Payment form.
 - c. List of subcontractors.
 - d. Schedule of allowances.
 - e. Schedule of alternates.
 - f. List of products.
 - g. List of principal suppliers and fabricators.
 - h. Schedule of submittals.
 - 2. Submit the Schedule of Values to the Architect at the earliest feasible date, but in no case later than 7 days before the date scheduled for submittal of the initial Application and Certification for Payment.
 - 3. Sub-Schedules: Where the Work is separated into phases that require separately phased payments, provide sub-schedules showing values correlated with each phase of payment.
- C. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Architect.
 - c. Project number.

- d. Contractor's name and address.
- e. Date of submittal.
2. Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:
 - a. Generic name.
 - b. Related Specification Section.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that have affected value.
 - g. Dollar value.
 - h. Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications and Certification for Payment and progress reports. Break principal subcontract amounts down into several line items.
4. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.
5. For each part of the Work where an Application and Certification for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
6. Unit Price Items: Show line item value of each unit price item as a product of unit cost times the base quantity.
7. Contingency Allowance: Show line item value of the contingency allowance.
8. Margins of Cost: Show line items for indirect costs, and margins on actual costs, only to the extent that such items will be listed individually in Applications and Certification for Payment. Each item in the Schedule of Values and Applications and Certification for Payment shall be complete including its total cost and proportionate share of general overhead and profit margin.
 - a. At the Contractor's option, temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the Schedule of Values or distributed as general overhead expense.
9. Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.3 APPLICATIONS AND CERTIFICATION FOR PAYMENT:

- A. Each Application and Certification for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
- B. The initial Application and Certification for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.

- C. Payment Application Times: Each progress payment date is as indicated in the Agreement. The period of construction Work covered by each Application and Certification for Payment is the period indicated in the Agreement.
- D. Payment Application Forms: Use AIA Document G 702 and Continuation Sheets G 703 as the form for Applications and Certification for Payment.
- E. Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if schedules have been revised.
 - 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- F. Transmittal: Submit five (5) executed copies of each Application for Payment to the Architect by means ensuring receipt within 24 hours; one copy shall be complete, including waivers of lien and similar attachments, when required and one (1) copy of "Retainage Release" letter.
 - 1. Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Architect.
- G. Waivers of Mechanics Lien: With each Application for Payment submit waivers of mechanics liens from subcontractors or sub-subcontractors and suppliers for the construction period covered by the previous application.
 - 1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
 - 2. When an application shows completion of an item, submit final or full waivers.
 - 3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 4. Waiver Delays: Submit each Application for Payment with the Contractor's waiver of mechanics lien for the period of construction covered by the application.
 - a. Submit final Application for Payment with or proceeded by final waivers from every entity involved with performance of Work covered by the application that could lawfully be entitled to a lien.
 - 5. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to Owner.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. List of principal suppliers and fabricators.
 - 3. Schedule of Values.
 - 4. Contractor's Construction Schedule (preliminary if not final).
 - 5. Schedule of principal products.

6. Schedule of unit prices.
 7. Submittal Schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits
 11. Copies of authorizations and licenses from governing authorities for performance of the Work.
 12. Initial progress report.
 13. Report of pre-construction meeting.
 14. Certificates of insurance and insurance policies.
 15. Performance and payment bonds (if required).
 16. Data needed to acquire Owner's insurance.
 17. Initial settlement survey and damage report, if required.
- I. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Administrative actions and submittals that shall precede or coincide with this application include:
1. Occupancy permits and similar approvals.
 2. Warranties (guarantees) and maintenance agreements.
 3. Test/adjust/balance records.
 4. Maintenance instructions.
 5. Meter readings.
 6. Start-up performance reports.
 7. Change-over information related to Owner's occupancy, use, operation and maintenance.
 8. Final cleaning.
 9. Application for reduction of retainage, and consent of surety.
 10. Advice on shifting insurance coverages.
 11. Final progress photographs.
 12. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.
- K. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
1. Completion of Project closeout requirements.
 2. Completion of items specified for completion after Substantial Completion.
 3. Assurance that unsettled claims will be settled.
 4. Assurance that Work not complete and accepted will be completed without undue delay.
 5. Transmittal of required Project construction records to Owner.
 6. Certified property survey.
 7. Proof that taxes, fees and similar obligations have been paid.
 8. Removal of temporary facilities and services.
 9. Removal of surplus materials, rubbish and similar elements.
 10. Change of door locks to Owner's access.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 32 00 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:
 - 1. Pre-Construction Conference.
 - 2. Pre-Installation Conferences.
 - 3. Coordination Meetings.
 - 4. Progress Meetings.
 - 5. Construction schedules are specified in other Division 01 Sections.

1.2 PRE-CONSTRUCTION CONFERENCE

- A. Schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after execution of the Agreement and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: The Owner, Architect and their consultants, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress including such topics as:
 - 1. Tentative construction schedule
 - 2. Critical Work sequencing
 - 3. Designation of responsible personnel
 - 4. Procedures for processing field decisions and Change Orders
 - 5. Procedures for processing Application and Certification for Payment
 - 6. Distribution of Contract Documents
 - 7. Submittal of Shop Drawings, Product Data and Samples
 - 8. Preparation of Record Documents
 - 9. Use of the premises
 - 10. Office, Work and storage areas
 - 11. Equipment deliveries and priorities
 - 12. Safety procedures
 - 13. First aid
 - 14. Security
 - 15. Housekeeping
 - 16. Working hours

1.3 PRE-INSTALLATION CONFERENCES

- A. Conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and

installations that have preceded or will follow, shall attend the meeting. Advise the Architect of scheduled meeting dates.

- B. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:
 - 1. Contract Documents.
 - 2. Options.
 - 3. Related Change Orders.
 - 4. Purchases.
 - 5. Deliveries.
 - 6. Shop Drawings, Product Data and Quality Control Samples.
 - 7. Possible conflicts.
 - 8. Compatibility problems.
 - 9. Time schedules.
 - 10. Weather limitations.
 - 11. Manufacturer's recommendations.
 - 12. Compatibility of materials.
 - 13. Acceptability of substrates.
 - 14. Temporary facilities.
 - 15. Space and access limitations.
 - 16. Governing regulations.
 - 17. Safety.
 - 18. Inspection and testing requirements.
 - 19. Required performance results.
 - 20. Recording requirements.
 - 21. Protection.
 - 22. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner and Architect.
 - 23. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.4 COORDINATION MEETINGS

- A. Conduct Project coordination meetings at regularly scheduled times convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.
- B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.
- C. Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.5 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project site at regularly scheduled intervals. Notify the Owner and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
- B. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.
 - 1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 2. Review the present and future needs of each entity present, including such items as:
 - a. Interface requirements.
 - b. Time.
 - c. Sequences.
 - d. Deliveries.
 - e. Off-site fabrication problems.
 - f. Access.
 - g. Site utilization.
 - h. Temporary facilities and services.
 - i. Hours of Work.
 - j. Hazards and risks.
 - k. Housekeeping.
 - l. Quality and Work standards.
 - m. Change Orders.
 - n. Documentation of information for payment requests.
- D. Reporting: No later than three (3) days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- E. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including;
 - 1. Contractor's construction schedule.
 - 2. Shop Drawings.
 - 3. Product Data.
 - 4. Samples.

- B. Administrative Submittals: Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals may include, but are not limited to:
 - 1. Permits
 - 2. Application and Certification for Payment
 - 3. Performance and Payment Bonds
 - 4. Insurance certificates
 - 5. List of Subcontractors

1.2 SUBMITTAL PROCEDURES

- A. Do not submit Material Safety Data Sheet (MSDS) or Safety Data Sheets (SDS). Submittals containing MSDS or SDS will be returned without review. MSDS and SDS may be submitted directly to the Owner.

- B. -Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
 - 3. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for re-submittals.
 - a. Allow two weeks (ten working days minimum) for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow two weeks (ten working days minimum) for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

- C. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Provide a space approximately 4 x 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. Provide a smaller clear area for Architect's review stamp.
 - 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 - j. Provide a unique sequential number for each submittal.

- D. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
 - 1. On the transmittal, record relevant information and requests for data. On the form, or on a separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
 - 2. The contractor shall include on the transmittal for each submittal, a unique sequential number for each submittal, starting with the number 1, as indicated above.

- E. All submittals to the Architect shall be from the general contractor. All submittals to the Architect shall bear the Contractor's review stamp indicating action taken in connection with the submittal.

- F. Do not submit Material Safety Data Sheet (MSDS) or Safety Data Sheets (SDS). Submittals containing MSDS or SDS will be returned without review. MSDS and SDS may be submitted directly to the Owner.

1.3 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 30 days of the date established for "Commencement of the Work".
 - 1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
 - 2. Within each time bar indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
 - 3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
 - 4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show

- each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
5. Coordinate the Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.
 6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Architect's procedures necessary for certification of Substantial Completion.
 7. Submit Contractor's Construction Schedule in electronic form, as Portable Document Format, (PDF), wherever possible.
- B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.
- D. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.
- E. Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating, "pre-calculated" and "actual" costs. On the line show dollar-volume of Work performed as of the dates used for preparation of payment requests.
1. Refer to Section "Applications for Payment" for cost reporting and payment procedures.
- F. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- G. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.
- 1.4 SHOP DRAWINGS
- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
1. Dimensions.
 2. Identification of products and materials included.
 3. Compliance with specified standards.
 4. Notation of coordination requirements.
 5. Notation of dimensions established by field measurement.

- C. Submit Shop Drawings in electronic form, as Portable Document Format, (PDF), wherever possible.
- D. Paper Shop Drawings: Provide sheet size except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 x 11 inches, but no larger than 36 x 48 inches.
 - 1. Final Submittal: Submit four (4) blue-line or black-line prints and 2 additional prints where required for maintenance manuals, plus the number of prints needed by the Contractor for distribution. Two (2) prints will be retained; the remainder returned.
 - 2. One of the prints returned shall be marked-up and maintained as a "Record Document".
- E. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- F. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.
- G. Preparation of coordination Drawings is specified in section "Project Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.
- H. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

1.5 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."
 - 1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 - 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
 - 3. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
 - 4. Submit Product Data in electronic form, as Portable Document Format (PDF), whenever possible.
- B. Paper Submittals: Submit two copies of each required submittal. submit four copies where required for maintenance manuals. The Architect will retain one, and will return the other marked with action taken and corrections or modifications required.
 - 1. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

- C. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
 - 1. Do not proceed with installation until an applicable copy of Product Data is in the installer's possession.
 - 2. Do not permit use of unmarked copies of Product Data in connection with construction.

1.6 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
 - 1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:
 - a. Generic description of the Sample.
 - b. Sample source.
 - c. Product name or name of manufacturer.
 - d. Compliance with recognized standards.
 - e. Availability and delivery time.
 - 2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.
 - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
 - c. Refer to other Specification Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
 - 3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
 - a. Preliminary submittals will be reviewed and returned with the Architect's mark indicating selection and other action.
 - 4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit minimum three (3) sets; one will be returned marked with the action taken.
 - 5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
 - 6. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
 - a. Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes,

coatings, or finish materials and to establish the standard by which the Work will be judged.

- 1) Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.7 ARCHITECT'S ACTION

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return promptly.
 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Action Stamp: The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
 1. "Conforms with design concept": Work may proceed providing it complies with Contract Documents.
 2. "Conforms with design concept as noted": Work may proceed providing it complies with notations on submittal and with the Contract Documents.
 3. "Revise as noted and Resubmit": Do not proceed with work. Revise submittal in accordance with notations thereon and resubmit to obtain a different action marking. Do not allow submittals with this action marking to be used in connection with performance of the work. In resubmitting, limit corrections to the items marked.
 4. "Rejected": Do not proceed with the work. Submittal is rejected for non-compliance with the Contract Documents or other justified cause. Correct the submittal and resubmit to obtain a different action marking. Do not allow submittals with this action marking to be used in connection with the performance of the work.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Workmanship
 - 2. Manufacturer's Instructions
 - 3. Manufacturer's Certificates
 - 4. Field Samples
 - 5. Manufacturer's Field Services
 - 6. Testing Laboratory Services

1.2 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.3 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Architect before proceeding.

1.4 MANUFACTURER'S CERTIFICATES

- A. When required by individual specification sections, submit manufacturer's certificate, in duplicate, that products meet or exceed specified requirements.

1.5 FIELD SAMPLES

- A. When required by individual specification sections, construct field samples at Project and at location acceptable to the Architect.
- B. Construct field sample complete and finished incorporating products and procedures specified for the Work.
- C. Upon acceptance by the Architect, use as a standard for the Work.
- D. When directed by the Architect, remove field samples from the Project.

1.6 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual specification sections, require supplier or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, or test, adjust, and balance of equipment as applicable, and to make appropriate recommendations.
- B. Representative shall submit written report to Architect listing observations and recommendations.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 42 00 - REFERENCES

PART 1 - GENERAL

1.1 SUMMARY

- A. General: Where codes and standards are referenced in this and other sections of the specifications or on the drawings, whether or not a particular edition is referenced, it is the intention that these be the latest editions as adopted by the governing agency under whose jurisdiction the project is to be constructed, on the date approval is granted for construction to begin.

1.2 CODES

- A. Work shall conform to the requirements of the currently adopted International Code Council series building codes, including any amendments or revisions, as adopted by the Authority Having Jurisdiction.
- B. Work shall conform to the requirements of the currently adopted Life Safety Code, NFPA 101, including any amendments or revisions, as adopted by the Authority Having Jurisdiction.
- C. Work shall conform to the requirements of the currently adopted National Electric Code, NFPA 70, including any amendments or revisions, as adopted by the Authority Having Jurisdiction.
- D. Work shall conform to the requirements of the currently adopted accessibility code, including any amendments or revisions, as adopted by the Authority Having Jurisdiction. Where multiple authorities, having different code requirements, have jurisdiction over the work, conform to the most stringent requirements.

1.3 CODE STANDARDS

- A. Fire doors shall conform to requirements of NFPA 80, Standards for Fire Doors and Windows.
- B. Heating, ventilating and air conditioning work shall conform to requirements of NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems.

1.4 REGULATIONS

- A. Electrical work shall conform to applicable regulations of the State of Tennessee, Department of Insurance, Division of Fire Prevention and regulations of the local utility company.

1.5 MATERIAL AND TESTING STANDARDS

- A. Components of the work shall conform to requirements of the American Society for Testing and Materials (ASTM) Standards, American National Standards Institute (ANSI) Standards and Trade Association Standards, as listed in the various other sections of the specifications.

1.6 MANUFACTURER'S RECOMMENDATIONS

- A. When work in accordance with the manufacturer's recommendation is specified, a copy of these recommendations shall be kept in the job office.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities required may include but are not limited to:
 - 1. Temporary electric power and light.
 - 2. Telephone service.
- C. Temporary construction and support facilities required include but are not limited to:
 - 1. Sanitary facilities, including drinking water.
 - 2. Construction waste disposal.
 - 3. Construction aids and miscellaneous services and facilities.
 - 4. Barricades, warning signs, lights.

1.2 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials; if acceptable to the Architect, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.
- B. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- C. Water: Provide potable water approved by local health authorities.
- D. Open-Mesh Fencing (if required): Provide 11 gage, galvanized 2 inch mesh, chain link fabric fencing 6 feet high with galvanized steel pipe posts, minimum 1-5/8 inch O.D. for line posts and minimum 2-3/8 inch O.D. for corner posts.

2.2 EQUIPMENT

- A. Water Hoses: Provide 3/4 inch heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than the maximum pressure of the water distribution system; provide adjustable shut-off nozzles at hose discharge.
- B. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- C. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.
- D. Lamps and Light Fixtures: Provide general service lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- E. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated re-circulation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
- F. First Aid Supplies: Comply with governing regulations.
- G. Fire Extinguishers: Provide hand-carried, portable UL-rated, Class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
 - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION (if required)

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.
- B. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.
- C. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
- D. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.
- E. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect, and will not be accepted as a basis of claims for a Change Order.
- F. Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload protected disconnects, automatic ground-fault interrupters and main distribution switchgear.
- G. Telephones: Provide cellular telephone service.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

- A. Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
 - 1. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- B. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- C. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- B. Security Enclosure and Lockup (if required): Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- C. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.
- D. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- E. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- F. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of the Contractor.

END OF SECTION

SECTION 01 25 00 – SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for requesting approval of proposed substitutions.
- B. Delays caused by tardiness of Contractor in preparing and forwarding submittals do not constitute an acceptable basis for substitution of products.
- C. Delays due to factors which were in effect prior to project bidding do not constitute an acceptable basis for consideration of substitute products.
- D. Related Sections:
 - 1 Section 01 21 00 Allowances
 - 2 Section 01 23 00 Alternates
 - 3 Section 01 60 00 Product Requirements for evaluating comparable product by listed manufacturers

1.3 LIMITATIONS OF SUBSTITUTIONS

- A. No substitutions will be entertained until the Bid Process is complete to ensure that all bidders are providing pricing on the materials and labor as outlined within the contract documents.
- D. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request complying with "submittal procedures" specified in this section.
- E. Substitutions will not be considered unless submitted through the General Contractor.
- F. Additional studies, investigations, submittals, redesign and/or analysis by the Architect/Engineer caused by the requested substitutions shall be paid by the Contractor at no expense to the Owner.
- G. Substitute products shall not be ordered or installed without written acceptance.
- H. Only one request for substitution for each product will be considered. When a substitution is not accepted by the Architect, provide the specified product.
- I. Architect's decision is final concerning the acceptability of all substitutions.

1.2 REQUESTS FOR SUBSTITUTIONS

- A. Contractor's Representation:
 - 1. Request of substitution constitutes a representation that the Contractor has investigated the proposed product and has determined that it is equal to or superior in all respects to the specified product.

2. Request for substitution constitutes a representation that the Contractor will provide same type of warranty for substitution as for specified product. Contractor's warranty shall be in writing guaranteeing all substituted products have same or superior performance as the product specified.
 3. Request for substitution constitutes a representation that the Contractor will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
 4. Request for substitution constitutes a representation that the Contractor waives all claims for additional costs related to substitutions that consequently become apparent.
 5. Request for substitution constitutes a representation that the cost data is complete and includes all related cost under his Contract but excludes any approved Architect's design fees required by substitution.
 6. Request for substitution constitutes a representation that the Contractor has thoroughly investigated the proposed substitute to determine if license fees and royalties are pending on the proposed substitutes, for compliance with Article 3.17 of General Conditions of the Contract / AIA Document A201-2017 Edition
- B. Submit requests for substitutions on the form titled Document 00 63 00 Substitution Request Form. Complete each request form with data substantiating compliance of proposed substitution with requirements of Contract Documents. Fill in the following information as shown below and provide other pertinent information as needed.
1. Project title and Architect's project number.
 2. Identification of product specified including specifications Section and Paragraph number.
 3. Identification of proposed substitute complete with manufacturer's name and address, trade name of product, and model or catalog number. Attach product data as specified in Section 01 33 00 Submittal Procedures.
 4. List of fabricator and supplier (with address and phone number) for proposed substitute.
 5. The effect of the substitution on dimensions, material thickness, wiring, piping, ductwork, etc., indicated in Contract Documents.
 6. The effect of substitution on other trades.
 7. The effect of substitution on construction schedule.
 8. Differences in quality and performance between specified product and proposed substitute.
 9. Comparison of manufacturer's guarantees of specified product and proposed substitute.
 10. Availability of maintenance services and replacement materials for proposed substitute.
 11. Cost data comparing proposed substitute with specified product, and amount of net change to Contract Sum.
 12. License fees and/or royalties pending on proposed substitute.

END OF SECTION

SECTION 01 63 10 – SUBSTITUTION REQUEST FORM

GENERAL: All Requests for Substitution must be made through the General Contractor. This form is part of the substitution requirements specified in Section 01 63 00.

PROJECT TITLE & NO. _____

TO. Lewis Group Architects
6512 Deane Hill Drive
Knoxville, TN 37919
(865) 584-5000, fax: (865) 588-1272

Attn. _____

Specified Item: _____

Section: _____ Paragraph: _____

Proposed Substitute: _____

Attach complete description, catalog information, specification data and laboratory tests if applicable.

1. What effect will substitution have on dimensions, gauges, weights, etc., indicated in Contract Documents?
2. What effect will substitution have on wiring, piping, ductwork, etc. indicated in Contract Documents?
3. What effect will substitution have on other trades?
4. What effect will substitution have on construction schedule?
5. What are the differences in quality and performance between proposed substitute and specified product?
6. Manufacturer guarantees of the specified products and proposed products are: Same/Different (Explain differences)
7. List (on separate sheet) the availability of maintenance services and replacement materials for proposed substitute.
8. List (on separate sheet) names, address and phone numbers of fabricators and suppliers for proposed substitutes.
9. If the substitution request is accepted, it will result in: No cost impact (Y) (N)
Credit amount \$ _____ Added Cost amount \$ _____
10. There ARE _____ ARE NOT _____ license fees and royalties pending on the proposed substitute.

11. The undersigned (Contractor, Subcontractor or Supplier) shall pay for additional studies, investigations, submittals, redesign and/or analysis by the Architect/Engineer caused by the requested substitution.

SUBMITTED BY: (Supplier or Subcontractor)

Firm: _____

Address: _____

Signature: _____

Telephone No.: _____ Date: _____

REVIEWED AND APPROVED for Supplier or Subcontractor by (General Contractor)

Firm: _____

Address: _____

Signature: _____

Telephone No.: _____ Date: _____

ARCHITECT/ENGINEER REVIEW COMMENTS

_____	Accepted	_____	Accepted as Noted (see attached copy)	_____	Rejected Due to incomplete form, Resubmit
_____	Not Accepted	_____	Received too late	_____	

Signature: _____ Date: _____

Remarks: _____

END OF SECTION 01 63 10

SECTION 01 73 29- CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 02 Section Selective Demolition for demolition of selected portions of the building.
 - 2. Divisions 02 through 49 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.

4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Contractor to verify patch materials and or floor levelers meet the requirements of the equipment provider for any new or relocated equipment.
 4. Floors and Walls: Where walls or partitions that are removed extend from one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 5. Ceilings: Refer to Finish Schedule for locations where patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 6. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

SECTION 01 77 00 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Substantial Completion procedures
 - 2. Contract Closeout Submittal
 - 3. Operation and Maintenance Data
 - 4. Warranty Data
 - 5. Demonstration and Training
 - 6. Final Application for Payment
 - 7. Final Inspection
- B. Related Sections:
 - 1. Specific requirements for the Work are included in the individual Sections of Divisions 02 through 49.

1.2 SUBSTANTIAL COMPLETION PROCEDURES

- A. When the Contractor determines the work is complete, he shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. The work has been inspected for compliance with Contract Documents by a qualified person authorized by the Contractor.
 - 3. The work is complete in accordance with the Contract Documents.
 - 4. Equipment and systems have been tested and demonstrated in the presence of the Owner's representative and are operational.
 - 5. A comprehensive list of items to be completed or corrected prior to final payment. Submit in electronic form.
- B. Within a reasonable time after receipt of the certification the Architect will schedule an inspection to verify completion.
- C. Should the Architect consider the work incomplete or defective, he will promptly notify the Contractor in writing listing incomplete or defective work. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification when the work is complete. The Architect will reinspect the work.

1.3 CONTRACT CLOSEOUT SUBMITTAL

- A. Submit to the Architect as a single package including:
 - 1. Project Data, i.e., as-built drawings.
 - 2. Operation and Maintenance Data
 - 3. Warranty Data
 - 4. Certificate of Occupancy and other approvals or permits required by Authorities Having Jurisdiction
 - 5. Contractor's Affidavit of Payment of Debts and Claims, AIA G706

6. Contractor's Affidavit of Release of Lien, AIA G706A
7. Subcontractor's and Suppliers' Affidavit of Release of Lien
8. Consent of Surety to Final Payment, AIA G707, with Power of Attorney.
9. Consent of Surety to Reduction in or Partial Release of Retainage, AIA G707A, with Power of Attorney

1.4 OPERATION AND MAINTENANCE DATA

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 1. Title page
 2. Table of contents
 3. Manual contents
 4. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- B. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
- C. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Provide tab labels or inserts securely attached to the divider sheet. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
- D. Submit two copies of the complete manual prior to inspection for Substantial Completion. Include a complete operation and maintenance directory.

1.5 WARRANTY DATA

- A. Warranties: Submit required warranties in a heavy-duty, two inch, 3-ring, vinyl-covered, loose-leaf binder organized into the appropriate divisions with marked divider tabs. Include a Table of Contents in the front of the binder listing warranties.
- B. Submit one copy of the complete warranty data prior to inspection for Substantial Completion.

1.6 DEMONSTRATION AND TRAINING

- A. Coordinate schedule of demonstration and training with Designer and Owner's personnel for all installed equipment and systems.
- B. If conditions (such as season of year) do not allow for a complete demonstration or training of equipment and systems operation during one meeting session; then

coordinate a schedule that will provide a sufficient number of sessions within the warranty period.

- C. Submit lists of Contractor's Service Personnel who are to be contacted if problems arise with installed equipment or systems. Personnel named must be familiar with installed equipment and systems. Submit updated lists through the duration of the Warranty period, as needed, if Contractor's Service Personnel changes.
- D. Conduct initial demonstration and training prior to Substantial Completion inspection.
- E. Substantial Completion shall not be certified, nor shall Owner be required to assume responsibility for operating, maintaining, or insuring system, prior to initial demonstration and training.
- F. Instruct Owner's personnel in operation, adjustment, and maintenance of equipment and systems; using the manufacturer's printed operating and maintenance data that is specific to the actual-installed equipment and systems as the basis of instruction.
 - 1. For each training event performed, submit two (2) professional grade DVD copies documenting the training event with Project Data Binders. Submit each disk in a standard protective hard plastic DVD disk container. Label both the disk and the container to include the full project title and short description of training documented by each disk.
- G. Submit one copy of Demonstration and Training certification prior to inspection for Substantial Completion. Demonstration and Training Certification must include the following information for each piece of equipment or system:
 - 1. Description of equipment or system.
 - 2. Date and location of demonstration and training for each piece of equipment or system.
 - 3. Name, company name, address and telephone number of person who providing demonstration and training.
 - 4. Name, company name, address and telephone number of person receiving demonstration and training.

1.7 FINAL APPLICATION FOR PAYMENT

- A. The Contractor shall submit the Final Application for Payment accompanied by a settlement of accounting, reflecting all adjustments to the Contract Sum.
 - 1. The Original Contract Sum.
 - 2. Additions and Deductions resulting from:
 - a. Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for non-conforming work.
 - e. Other adjustments.
 - 3. Total Contract Sum as adjusted.
 - 4. Previous Payments.
 - 5. Sum Remaining Due.

- B. Signed Final Change Order by the Contractor (if required) with a cover letter certifying that, to the best of his knowledge, the project is in compliance with the Contract Documents and the balance shown is due and payable.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 02 41 19 - INTERIOR SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building.

1.2 DEFINITIONS

- A. Remove: Demolish existing buildings or structures as indicated and legally dispose of them off-site unless indicated to be removed and salvaged.
- B. Remove and Salvage: Detach items from existing construction using gentle methods and equipment to prevent damage to the item and exposed surfaces. Tag each item on a concealed surface in accordance with submittal requirements (except for brick masonry units which need not be tagged). Store items on-site for reinstallation in future new or renovation work.
- C. Existing to Remain: Leave existing items that are not indicated to be removed in accordance with A or B above and protect from damage by adjacent demolition activities as needed to maintain the items in their condition prior to the start of demolition activities.

1.3 MATERIALS OWNERSHIP

- A. Items designated to be removed and not designated as existing to remain or not designated for salvage shall be identified as demolition waste which shall become property of the Contractor.

1.4 PRE-DEMOLITION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site.
- B. Inspect and discuss condition of construction within the scope of this section.
- C. Review structural load limitations of existing structure.
- D. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
- E. Review requirements of work performed by other trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- F. Review areas where existing construction is to remain and requires protection.

G:\Projects\2022\22050 - Roane County Schools - Toilet Renovations\06-Specs\02 thru 04\02 41 19-22050-Interior Selective Demolition.docx

1.5 QUALITY ASSURANCE

- A. Engage a structural engineer licensed in the state of Tennessee to perform an engineering survey of the condition of the building to determine whether removing any element might result in a structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

1.6 SUBMITTALS

- A. Provide construction barriers as required for protecting individuals and property and dust and noise control.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's adjacent facility operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
- C. Shoring and bracing shop drawings with calculations signed and sealed by the contractor's structural engineer coordinated with the schedule of selective demolition activities.
- D. Pre-demolition Photographs: Show existing conditions of adjoining construction, including finish surfaces, which might be misconstrued as damage caused by demolition operations. Submit before work begins.

1.7 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
 - 1. Before selective demolition, Owner will remove the following items:
 - a. General Contractor to verify with Owner removal of all items prior to beginning demolition.
- B. Notify Architect of discrepancies between existing conditions and drawings before proceeding with selective demolition.
- C. Hazardous Materials: If encountered during construction, do not disturb hazardous materials or items suspected of containing hazardous materials, and notify the Owner immediately.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain data and communications services as necessary to coordinate with simultaneous work on the site.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards:
 - 1. Comply with ASSE A10.6 and NFPA 241
 - 2. The Brick Industry Association (Formerly Brick Institute of America)

PART 3 - EXECUTION

3.1 Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

- A. Comply with requirements for access and protection specified in Section 01 50 00 "Temporary Facilities and Controls."

3.2 PREPARATION

- A. Verify that utilities have been marked, protected, disconnected, and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. The contractor's structural engineer shall perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
 - 1. Shore, brace, and support structural elements during cutting and removal only as directed by the contractor's structural engineer. Do not cut, modify, or remove any structural elements unless done in accordance with the contractor's structural engineer's direction.
- D. Verify that any hazardous materials discovered during construction have been remediated before proceeding with building demolition operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
 - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations. Tag photographic images to match shop drawing requirements.

G:\Projects\2022\22050 - Roane County Schools - Toilet Renovations\06-Specs\02 thru 04\02 41 19-22050-Interior Selective Demolition.docx

- F. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.
- G. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.3 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Arrange to shut off utilities with utility companies.
 - 2. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - c. Ducts to Be Removed: Remove portion of ducts indicated to be removed.

3.4 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to vehicles and the adjacent built and natural environment.
 - 1. Provide protection to ensure safe passage of people around selective demolition area.
 - 2. Refer to Section 015000 "Temporary Facilities and Controls."
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.5 SELECTIVE DEMOLITION

- A. Remove existing construction as indicated: Use methods required to complete the work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before

disturbing supporting members on the next lower level. Avoid excessive vibration at areas near the original building that shall remain in place.

2. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during and after flame-cutting operations.
3. Maintain adequate ventilation when using cutting torches.
4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
5. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
6. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
7. Dispose of demolished items and materials promptly.

- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Comply with requirements for access and protection specified in Section 01 50 00 "Temporary Facilities and Controls."

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Except items or materials indicated to remain or be salvaged and reinstalled, or otherwise indicated to remain as Owner's property, remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began. Maintain protection of existing to remain construction and salvaged materials.

END OF SECTION

SECTION 07 84 56 - FIRE SAFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes head wall firestop systems for fire-resistance-rated constructions.
 - 1. Head wall fire stop systems for fire-resistance-rated construction
 - 2. Joints in or between fire-resistance-rated constructions.
 - 3. Joints at exterior curtainwall / floor intersections.
 - 4. Joints in smoke barriers.

- B. Related Sections
 - 1. Section 01 30 00 - Submittals
 - 2. Section 01 60 00 - Product Requirements
 - 3. Section 01 63 00 - Substitution Procédures
 - 5. Division 21 Sections specifying fire-suppression piping penetrations.
 - 6. Division 22 and 23 Sections specifying duct and piping penetrations.
 - 7. Division 26, 27, and 28 Sections specifying cable and conduit penetrations.

1.2 PERFORMANCE REQUIREMENTS

- A. For top of wall fire-resistance-rated constructions, that are produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Test Reports: From a qualified testing agency indicating system complies with requirements, based on comprehensive testing of current products.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver fire safing products to Project site in original, unopened containers or packages with intact and legible manufacturers' labels identifying product and manufacturer, date of manufacture, lot number, shelf life if applicable, qualified testing and inspecting agency's classification marking applicable to Project.
- B. Store and handle materials to prevent their deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERES

- A. Provide products by one of the following manufacturers:
 - 1. Thermafiber Inc.
 - 2. Rockwool

2.2 MATERIALS

- A. Fire Safing: mineral fiber insulation, both shaped to fit metal deck flutes and standard batts. Subject to compliance with requirements, materials that may be incorporated into the Work include, but are not limited to:
 - 1. Thermafiber Inc. TopStop and SAFB (Sound Attenuation Fire Blankets).
- B. Sealants used in combination with other materials to provide rated construction in conformance with U.L. construction indicated on the drawings. Subject to compliance with requirements, materials that may be incorporated into the Work include, but are not limited to:
 - 1. Thermafiber Inc. Smoke Seal Compound.
- C. Substitutions: Under provisions of Section 01 60 00.

2.2 ACCESSORIES

- A. Accessories: Provide Zee clips for support of safing insulation and other accessory items required for compliance with UL construction details.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of work.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.

3.3 PROTECTION

- A. Provide final protection and maintain conditions during and after installation that ensure that systems are without damage or deterioration at time of Substantial

Completion. If, despite such protection, damage or deterioration occurs, remove damaged or deteriorated systems immediately and install new materials to produce systems complying with specified requirements.

END OF SECTION

SECTION 07 92 00 - JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Section 07 84 00 - Firestopping: Firestopping sealants.
- B. Section 07 95 13 - Expansion Joint Systems: Sealants forming part of expansion joint cover assemblies.
- C. Section 08 71 00 - Door Hardware: Setting exterior door thresholds in sealant.
- D. Section 08 80 00 - Glazing: Glazing sealants and accessories.
- E. Section 09 21 16 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.
- F. Section 09 22 16 - Non-Structural Metal Framing: Sealing between framing and adjacent construction in acoustical and sound-rated walls and ceilings.

1.03 REFERENCE STANDARDS

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer; 2015.
- B. ASTM C834 - Standard Specification for Latex Sealants; 2017.
- C. ASTM C919 - Standard Practice for Use of Sealants in Acoustical Applications; 2018.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- E. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.
- F. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants; 2018.
- G. SCAQMD 1168 - Adhesive and Sealant Applications; 1989 (Amended 2017).

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.

1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
 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. Certification by manufacturer indicating that product complies with specification requirements.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.

1.06 WARRANTY

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

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
1. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
 2. Pecora Corporation: www.pecora.com/#sle.
 3. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.
- B. Self-Leveling Sealants: Pourable or self-leveling sealant that has sufficient flow to form a smooth, level surface when applied in a horizontal joint.
1. Dow Chemical Company: consumer.dow.com/en-us/industry/ind-building-construction.html/#sle.
 2. Pecora Corporation: www.pecora.com/#sle.
 3. Tremco Commercial Sealants & Waterproofing: www.tremcosealants.com/#sle.

2.02 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - b. Other joints indicated below.
 - 2. Do not seal the following types of joints.
 - a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
 - b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
 - c. Joints where installation of sealant is specified in another section.
- B. Type C-1 - Interior Joints: Use non-sag acrylic emulsion latex sealant, unless otherwise indicated.
 - 1. Type S-8 - Wall and Ceiling Joints in Wet Areas: Non-sag mildew-resistant silicone sealant for continuous liquid immersion.
- C. Interior Wet Areas: Restrooms; fixtures in wet areas include plumbing fixtures, and other similar items.

2.03 JOINT SEALANTS - GENERAL

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

2.04 NONSAG JOINT SEALANTS

- A. Type S-7 - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
 - 1. Movement Capability: Plus and minus 50 percent, minimum.
 - 2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
 - 3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
 - 4. Hardness Range: 15 to 35, Shore A, when tested in accordance with ASTM C661.
 - 5. Color: To be selected by Architect from manufacturer's full range for each application.
- B. Type S-8 - 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. Color: To be selected by Architect from manufacturer's full range..
- C. Type C-1 - Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.
 - 1. Color: To be selected by Architect from manufacturer's full range.
 - 2. Grade: ASTM C834; Grade NF.

2.06 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.

- 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.

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.
- E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

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. Perform acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- E. Install bond breaker backing tape where backer rod cannot be used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. 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.

- H. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- I. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

END OF SECTION 07 92 00

SECTION 08 11 13 - HOLLOW METAL FRAMES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Non-fire-rated hollow metal frames.
- B. Hollow metal frames for wood doors.

1.2 RELATED SECTIONS

- A.** Section 08 71 00 - Door Hardware.
- B. Section 09 91 23 - Interior Painting: Field painting.

1.3 ABBREVIATIONS AND ACRONYMS

- A. ANSI: American National Standards Institute.
- B. HMMA: Hollow Metal Manufacturers Association.
- C. NAAMM: National Association of Architectural Metal Manufacturers.
- D. SDI: Steel Door Institute.

1.4 REFERENCES

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2011.
- C. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2003 (R2009).
- D. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2017.
- E. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2011.
- F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2019a.

- G. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2018.
 - H. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2018a.
 - I. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2016.
 - J. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
 - K. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.
 - L. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.
 - M. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2007.
 - N. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2014.
 - O. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives; 2019.
 - P. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; 2013.
 - Q. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
 - R. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.
- 1.5 SUBMITTALS
- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
 - B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes.
 - C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
 - D. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.
 - E. Manufacturer's Qualification Statement.

- F. Installer's Qualification Statement.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.
- C. Maintain at project site copies of reference standards relating to installation of products specified.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Hollow Metal Doors and Frames:
 1. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com
 2. Curries, an Assa Abloy Group company: www.assaabloydss.com
 3. Mesker, dormakaba Group: www.meskeropeningsgroup.com
 4. Steelcraft, an Allegion brand: www.allegion.com

2.2 PERFORMANCE REQUIREMENTS

- A. Requirements for Hollow Metal Doors and Frames:
 1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
 2. Accessibility: Comply with ICC A117.1 and ADA Standards.
 3. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

2.3 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.

- B. Frame Finish: Factory primed, and field finished.
- C. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
 - 1. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
- D. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
- E. Frames Wider than 48 inches Reinforce with steel channel fitted tightly into frame head, flush with top.

2.4 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10.

2.5 ACCESSORIES

- A. Grout for Frames: Portland cement grout with maximum 4-inch slump for hand troweling; thinner pumpable grout is prohibited.
- B. Temporary Frame Spreaders: Provide factory - or shop-assembled frames.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

3.2 INSTALLATION

- A. Install frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Coordinate frame anchor placement with wall construction.
- C. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- D. Install door hardware as specified in Section 08 71 00.
 - 1. Comply with recommended practice for hardware placement of doors and frames in accordance with ANSI/SDI A250.6 or NAAMM HMMA 861.
- E. Touch up damaged factory finishes.

3.3 TOLERANCES

- A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
- B. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

3.4 ADJUSTING

- A. Adjust for smooth and balanced door movement.

END OF SECTION

SECTION 08 14 16 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Flush wood doors; configuration; non-rated.

1.2 RELATED REQUIREMENTS

- A. Section 08 11 13 - Hollow Metal Doors and Frames.
- B. Section 08 71 00 - Door Hardware.

1.3 REFERENCE STANDARDS

- A. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2018).
- B. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives; 2019.
- C. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.

1.4 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
- D. Samples: Submit two samples of door veneer, 4 by 4 inch in size illustrating wood grain, stain color, and sheen.
- E. Manufacturer's Qualification Statement.
- F. Installer's Qualification Statement.
- G. Warranty, executed in Owner's name.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than five years of documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges if stored more than one week. Break seal on site to permit ventilation.

1.7 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Interior Doors: Provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Wood Veneer Faced Doors:
 - 1. Graham Wood Doors: www.grahamdoors.com/#sle.
 - 2. Marshfield DoorSystems, Inc: www.marshfielddoors.com/#sle.
 - 3. VT Industries, Inc: www.vtindustries.com/#sle.

2.2 DOORS

- A. Doors: Refer to drawings for locations and additional requirements.
 - 1. Quality Standard: Premium Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS), unless noted otherwise.
 - 2. Wood Veneer Faced Doors: 5-ply or 7-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
 - 1. Provide solid core doors at each location.

2. Smoke and Draft Control Doors: In addition to required fire rating, provide door assemblies tested in accordance with UL 1784 with maximum air leakage of 3.0 cfm per sq ft of door opening at 0.10 inch wg pressure at both ambient and elevated temperatures for "S" label; if necessary, provide additional gasketing or edge sealing.
3. Wood veneer facing with factory transparent finish.

2.3 DOOR AND PANEL CORES

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.

2.4 DOOR FACINGS

- A. Veneer Facing for Transparent Finish: Red oak, veneer grade in accordance with quality standard indicated, rift cut (only red and white oak), with slip match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
 1. Vertical Edges: Same species as face veneer.
 2. "Running Match" each pair of doors and doors in close proximity to each other.

2.5 DOOR CONSTRUCTION

- A. Fabricate doors in accordance with door quality standard specified.
- B. Cores Constructed with stiles and rails:
 1. Provide solid blocks at lock edge and top of door for closer for hardware reinforcement.
- C. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- D. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- E. Provide edge clearances in accordance with the quality standard specified.

2.6 FACTORY FINISHING - WOOD VENEER DOORS

- A. Finish work in accordance with AWI/AWMAC/WI (AWS), Section 5 - Finishing for grade specified and as follows:
 1. Transparent:
 - a. System - 11, Polyurethane, Catalyzed.
 - b. Stain: As selected by Architect.
 - c. Sheen: Semigloss.
- B. Factory finish doors in accordance with approved sample.

2.7 ACCESSORIES

- A. Hollow Metal Door Frames: As specified in Section 08 11 13.
- B. Door Hardware: As specified in Section 08 71 00.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.2 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
 - 1. Install fire-rated doors in accordance with NFPA 80 requirements.
 - 2. Install smoke and draft control doors in accordance with NFPA 105 requirements.
- B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.

3.3 TOLERANCES

- A. Comply with specified quality standard for fit and clearance tolerances.
- B. Comply with specified quality standard for telegraphing, warp, and squareness.

3.4 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

END OF SECTION

SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Hardware for and hollow metal doors
 - 2. Coordinate finish hardware work with work of other trades as required.
- B. Related Sections:
 - 1. Section 08 11 13-Hollow Metal Doors and Frames
 - 2. Section 08 14 16 Flush Wood Doors

1.2 DEFINITIONS

- A. ADA/ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disability Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities."

1.3 REFERENCES

- A. Builders Hardware Manufacturer Association (BHMA) is used as a reference standard for finish designations.
- B. Door and Hardware Institute (DHI) "Recommended Locations for Builders' Hardware for Standard Steel Doors and Frames" is used as a reference standard for hardware locations.
 - 1. This standard is referred to as "DHI Recommended Locations".
 - 2. Maintain copy of this standard at job site during progress of work.

1.4 REGULATORY REQUIREMENTS

- A. For fire-rated door assemblies, provide hardware listed in Underwriters' Laboratories "Building Materials Directory", edition current at time of installation.
- B. Comply with National Fire Protection Association (NFPA) "Standard for Fire Doors and Windows, NFPA 80" for products and installation.
- C. Exterior and interior passage doors with latching hardware must be equipped with operating hardware devices that comply with accessibility requirements of codes adopted by the Authority Having Jurisdiction (e.g., lever handle, push/pull latch, etc.).

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Cooperate with Finish Hardware supplier in scheduling dates for submittals and delivery of templates and finish hardware.

- C. Submit hardware schedule in manner indicated below. Coordinate hardware with doors, frames, and related work to ensure proper size, thickness, hand, function and finish of hardware.
 - D. Final hardware schedule: Based on finish hardware, organize a schedule into "Hardware Sets" containing all items required for each door opening. Include the following information:
 - 1. Type, style, function, size, finish, and manufacturer of each hardware item.
 - 2. Explanation of abbreviations, symbols, codes, etc. contained in schedule.
 - 3. Fastening and other pertinent information.
 - 4. Location of hardware set cross-reference to drawings.
 - 5. Mounting locations for hardware.
 - 6. Door frame size and material.
 - 7. Set numbering shall match that indicated in the specifications.
 - E. Submit schedule at earliest possible date since acceptance of hardware schedule must precede fabrication of other work (i.e., hollow metal frames) critical to construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by finish hardware, and other information essential to a coordinated review of hardware schedule. Include in schedule a riser diagram for all electrified hardware items.
 - F. Furnish templates to fabricators of doors, frames, and other work to be factory prepared for the installation of hardware. Upon request, check shop drawings of each other's work, to confirm that adequate provisions are made for proper location and installation of hardware.
 - G. Do not order hardware until hardware and schedule has been approved by the Architect.
- 1.6 QUALITY ASSURANCE
- A. Obtain each type of Hardware (i.e., locks) from a single manufacturer.
 - B. "Supplier" refers to a recognized architectural hardware supplier, with warehouse facilities, furnishing hardware for not less than 2 years, and who is, or who employs an experienced Architectural Hardware Consultant who, at reasonable times during the course of the work, is available for consultation with the Owner, Architect and Contractor about the project's requirements.
 - C. Suppliers Qualifications: Employ a full-time Architectural Hardware Consultant (AHC) for consultation to Architect about project's hardware requirements, during the course of the Work.
 - D. Comply with American National Standards Institute (ANSI) Builders Hardware Manufacturer's Association (BHMA) A156 series for performance standards of the products referenced.

1.7 PRE-INSTALLATION CONFERENCE

- A. Pre-installation conference is required, prior to commencing work of this Section, to determine Owner requirements for keying.
- B. Schedule under provisions of Section 01 32 00.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually. Label and identify package with door opening code to match schedule.
- B. Deliver keys to Owner by secure shipment direct from hardware supplier. Label and package keys individually for each door opening and provide in key cabinet.
- C. Protect materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

1.9 MAINTENANCE

- A. Provide manufacturer's maintenance services on door closers for one year from Date of Substantial Completion.
- B. Provide special wrenches and tools applicable to each different or special hardware component.

1.10 PROJECT CONDITIONS

- A. Whenever cutting and fitting is required to install hardware into or onto surfaces which are later to be painted or finished, coordinate removal, storage, and reinstallation with finishing work.
- B. Do not install surface mounted items until finishes on the substrate have been completed.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. For each product, one of the listed manufacturers, where only one manufacturer is listed, no substitutions will be permitted.
 - 1. The first name manufacturer is the one whose product designation is used.
- B. Butts and Hinges:
 - 1. Hager Hinge Company.
 - 2. Stanley Hardware.
 - 3. McKinney, Subsidiary of Kidde, Inc.
- C. Push Pull Latches:

1. Hager Hinge Co.
2. Trimco
3. Glynn Johnson, Inc.

D. Stops and Bumpers:

1. Hager.
2. Rockwood Manufacturing Company.
3. Glynn-Johnson.
4. H.B. Ives.

E. Silencers:

1. H.B. Ives.

F. Kickplates:

1. Hager.
2. Rockwood Manufacturing Company.
3. H.B. Ives.

G. No substitutions, except under provisions of Section 01 63 00.

2.2 BUTTS AND HINGES

A. Butts: Unless otherwise indicated, BB1279, manufactured by Hager Hinge Company.

1. Provide non-removable pins for exterior doors and out-swinging corridor doors.

B. Provide 4-1/2 x 4-1/2-inch butts for doors not over 36 inches wide.

1. Provide 5 x 4-1/2-inch butts for doors over 36 inches wide.
2. Provide hinge of proper width where doors are indicated with 180-degree swing.

C. Provide one and one-half pair butts for each leaf.

D. Finish: US26D.

2.3 CONTINUOUS ALUMINUM HINGES

A. Provide types as scheduled.

1. Provide Heavy Duty type as scheduled.

B. Finish: Mill.

2.4 PUSH PULL LATCHES

A. Provide types as scheduled.

1. Provide lockable trim where scheduled.

B. Finish: 630.

2.5 STOPS AND BUMPERS

- A. Stops: Provide 236W, manufactured by Hager Company in a Stainless Steel Finish where door stop is scheduled.
 - 1. Substitute No. 242F where wall mounted stop cannot be used.
 - 2. Brass, 626 finish.
- B. Silencer: SR64, manufactured by H.B. Ives
 - 1. Provide 3 at single doors.
 - 2. Provide 2 at pairs of doors.

2.6 PLATES

- A. Kick Plates: 190S Series as manufactured by Hager Hinge Co.
 - 1. Stainless Steel.
 - 2. Height: 8 inches.
 - 3. Length:
 - a. Single Doors: Nominal door width less 1 inch, except less 2 inches when plate is on push side.
 - b. Double Doors: Nominal door leaf width less 1 inch.
- B. Push and Pull Plates: As scheduled.
- C. Finish: 630.

2.7 FASTENERS

- A. Provide fasteners to suit conditions.
 - 1. Provide concealed fasteners for units which are exposed when the door is closed.
 - 2. Provide Phillips screws, except as otherwise indicated.
- B. Provide exposed fasteners of finish to match the finish of the hardware item.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements of Sections in which substrates and related work are specified and for other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Verify that doors and frames are of size and materials indicated on schedule.
 - 1. Verify door swings.
 - 2. Verify fire rating requirements.
- C. Verify that doors and frames are ready to receive work and dimensions are as indicated.

3.2 INSTALLATION

- A. Install hardware in accordance with manufacturer's instructions.
- B. Use templates provided by hardware item manufacturer.
- C. Drill and countersink fasteners for units which are not factory-prepared for anchorage fasteners.

3.3 ADJUST AND CLEAN

- A. Adjust and check each operating item of hardware to ensure proper operation or function.
 - 1. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.4 MAINTENANCE

- A. After approximately six months occupancy, and within 10 days of notification by Architect, inspect the finish hardware installation, accompanied by the Supplier.
 - 1. Readjust each hardware item to restore proper function.
 - 2. Replace hardware items that have deteriorated or failed.
 - 3. Instruct Owner's personnel in recommended additions to the maintenance procedures.

3.5 PROTECTION

- A. Protect installed materials from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where material is subject to abuse.

3.6 SCHEDULE

Set No. 1

Each to Have

1	Continuous Hinge:	780-112-HD	628
1	Push Plate:	30S -8" x 16"	632
1	Pull Plate:	H33G --4" x 16" (2-1/2 Clearance)	632
1	Door Closer:	4040XP	689
1	Kick Plate:	193S	632
1	Doorstop:	236W	626
3	Silencer:	SR64	---

END SECTION

SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.
 - 2. Trim and accessory materials.
 - 3. Labeling of fire and smoke rated walls, above ceiling. ASTM references C1396 is preferred.
 - 4. Gypsum Association / Application and Finishing of Gypsum Panel Products - GA-216-2010
- B. Related Sections
 - 1. Section 01 30 00 Submittals
 - 2. Section 01 60 00 - Product Requirements
 - 3. Section 01 63 00 Substitution Procedures
 - 4. Section 01 63 10- Substitution Request Form
 - 5. Section 07 92 00 - Joint Sealants" for acoustic and general use sealants.
 - 6. Section 09 91 00 Painting, for primers applied to gypsum board surfaces.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.

1.3 QUALITY ASSURANCE

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E119 by an independent testing agency.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against damage from weather, condensation, direct sunlight, construction traffic, and other causes. Stack panels flat to prevent sagging.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install interior products until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.

1. Indications that panels are wet, or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

1. Manufacturers: Provide products by one of the following:
 - a. USG Corporation.
 - b. CertainTeed Gypsum.
 - c. G-P Gypsum.
 - d. National Gypsum Company.

2.2 MATERIALS

- A. Comply with ASTM C1396, as applicable to type of gypsum board indicated and whichever is more stringent.
 1. Regular Type:
 2. Thickness: 5/8 inch.
 3. Long Edges: Tapered.
- B. Cementitious Backer Board: Provide USG Durock Cement Board with Edge Guard, as Manufactured by Unites States Gypsum Company, with the following characteristics:
 1. Complies with ANSI A118.9 and ANSI A008.11
 2. Water durable and mold resistant
 3. Suitable for interior and exterior use
 4. Material: Portland cement slurry, polymer coated glass glass-fiber mesh, edges formed with patented polypropylene fabric wrap.
 5. Ends: Square cut
 6. Thickness: 5/8 inch
- C. Fiberglass Mesh Tape:
 1. Provide Durock Brand Interior Tape, as manufactured by United States Gypsum Company, with the following characteristics:
 - a. Material: Alkali-resistant glass fiber
 - b. Width: 2 inches

2.3 ACCESSORIES

- A. Interior Trim: ASTM C1047.
 1. Material: Galvanized.
 2. Shapes:
 - a. Cornerbead.
 - b. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - c. Expansion (control) joint.

2.4 JOINT TREATMENT MATERIALS

- A. Comply with ASTM C475.
- B. Joint Tape:
 - 1. Interior Gypsum Wallboard: Paper.
- C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type, compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: for Second coat use drying-type, all-purpose, compound.
 - 4. Finish Coat: Use all-purpose, drying type, all-purpose, compound.

2.5 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Steel Drill Screws: ASTM C1002, unless otherwise indicated.
 - 1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 - 2. Provide galvanized screws at tile backer panels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames and framing, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS,

- A. Comply with ASTM C840.

- B. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- C. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- D. Form control and expansion joints with space between edges of adjoining gypsum panels.
- E. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, conduits, and similar penetrations to allow nominal 1/4-to 3/8-inch clearance.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- F. Install tile backer board, follow manufacturers guidelines, do not force butt joints.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Single-Layer Application:
 - 1. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - b. At stairwells and other high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.
 - 2. On Z-furring members, apply gypsum panels horizontally, with no end joints. Locate edge joints over furring members.
 - 3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 INSTALLING TRIM ACCESSORIES

- A. For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:

1. Cornerbead: Use at outside corners, unless otherwise indicated.
2. U-Bead: Use where indicated.

D. Aluminum Trim: Install in locations indicated on Drawings.

3.5 FINISHING GYPSUM BOARD

- A. Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
 1. Level 4: At panel surfaces that will be exposed to view, unless otherwise indicated.
 - a. Primer and its application to surfaces are specified in other Division 09 Sections.

3.6 MARKING AND IDENTIFICATION OF WALLS

- A. Mark and identify firewalls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations. Walls shall be effectively and permanently identified with signs or stenciling and shall meet the three following requirements:
 1. Be located in accessible concealed floor, floor-ceiling or attic spaces;
 2. Be repeated at intervals not exceeding 30 feet (914 mm) measured horizontally along the wall or partition; and
 3. Include lettering not less than 0.5 inch in height, incorporating the suggested wording: "FIRE BARRIER-PROTECT ALL OPENINGS," or as applicable "SMOKE BARRIER-PROTECT ALL OPENINGS," other wording is acceptable but must be approved by the architect.
 4. Provide a minimum 2 inch wide colored stripe indicating extent of each wall type or transition to a different wall type, including non-rated.

3.7 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 1. Indications that panels are wet, or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes non-load-bearing steel framing members for the following applications:
 - 1. Interior walls metal studs and supports for ceilings.
- B. Related Sections:
 - 1. Section 09 29 00 - Gypsum Board.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Framing Members: Comply with ASTM C754 for conditions indicated.
- B. Steel Sheet Components: Comply with ASTM C645 requirements for metal, unless otherwise indicated.
 - 1. Comply with ASTM C645; roll-formed from hot-dipped galvanized steel; complying with ASTM A1003 and ASTM A653 G40 (Z120) or having a coating that provides equivalent corrosion resistance.
- C. Tie Wire: ASTM A641, Class 1 zinc coating, soft temper, 0.0625-inch- diameter wire, or double strand of 0.0475-inch- diameter wire.
- D. Steel Studs and Runners: ASTM C645.
 - 1. Minimum Base-Metal Thickness:
 - a. Plain: 0.027 inch (27 mil)
 - b. Dimpled: 0.020 (20 mil)
 - 2. Depth: 3-5/8 inch typical, or 1-5/8, 2-1/2, 6, 8 or other as indicated on drawings.
- E. Hat-Shaped, Rigid Furring Channels: ASTM C645.
 - 1. Minimum Base Metal Thickness: 0.0179 inch (18 mil).
 - 2. Depth: 7/8 inch, unless indicated otherwise.
- F. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Installation Standard: ASTM C754, except comply with framing sizes and spacing indicated.
 - 1. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.
- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Install bracing at terminations in assemblies.

3.3 INSTALLING FRAMED ASSEMBLIES

- A. Install studs so flanges within framing system point in same direction.
 - 1. Space studs as follows, maximum spacing:
 - a. Single-Layer Application: 16 inches o.c., unless otherwise indicated.
 - b. Multilayer Application: 16 inches o.c., unless otherwise indicated.
 - c. Tile backing panels: 16 inches o.c., unless otherwise indicated.
- B. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.
 - 1. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
 - a. Install two studs at each jamb, unless otherwise indicated.
 - b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
 - c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
 - 2. Other Framed Openings: Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.

3. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance- rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
 4. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.
- C. Direct Furring:
1. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced maximum 24 inches o.c.
- D. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION

SECTION 09 30 00 - TILING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes ceramic floor tile, wall tile and base.
- B. Related Sections
 - 1. Section 01 25 00 - Substitution Procedures
 - 2. Section 01 30 00 - Submittal Procedures
 - 3. Section 01 60 00 - Product Requirements
 - 4. Division 03 Section - Cast-in-Place Concrete for monolithic slab finishes specified for tile substrates.
 - 5. Section 09 29 00 Gypsum Board Assemblies
- C. Refer to Finish Schedule or Finish Legend for product selections.

1.2 REFERENCES

- A. American National Standards Institute
 - 1. ANSI A118.1 Dry-Set Cement Mortar
 - 2. ANSIA108.4 A118.4 American National Standard Specifications for Modified Dry-Set Cement Mortar – 2019
 - 3. ANSIA108.6 A118.6 American National Standard Specifications for Standard Cement Grouts for Tile Installation – 2019
 - 4. ANSIA108.10 A108.10 Installation of Grout in Tilework – 2017
- B. American Society for Testing Materials (ASTM)
 - 1. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - 2. ASTM C499 Standard Test Method for Facial Dimensions and Thickness of Flat, Rectangular Ceramic Wall and Floor Tile
- C. Tile Council of America
 - 1. Handbook for Ceramic, Glass, and Stone Installation Manual, 2021

1.3 DEFINITIONS

- A. Module Size: Actual tile size (minor facial dimension as measured per ASTM C499) plus joint width indicated.
- B. Face Size: Actual tile size, excluding spacer lugs (minor facial dimension as measured per ASTM C499).
- C. Facial Dimension: Nominal tile size as defined in ANSI A137.1.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: Samples for each type of tile and for each color and texture required, not less than 12 inches square, on plywood or hardboard backing and grouted.
 - 1. Full size samples for each type of trim, accessory, metal edge strip and colors.
- C. Certification: Furnish Master Grade Certificates for each shipment and type of tile, signed by manufacturer and Installer.
- D. Certified Test Reports: Submit certified test reports from a qualified independent testing laboratory evidencing compliance of tile and tile setting products with requirements specified based on comprehensive testing of current products. Include in reports testing laboratory's interpretation of test results relative to specified requirements.
- E. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.

1.5 QUALITY ASSURANCE

- A. Provide materials that comply with Americans with Disabilities Act Design Guidelines recommendations for slip resistance on both flat and ramped surfaces.
- B. Source of Materials: Provide materials obtained from one source for each type and color of tile, grout, and setting materials.
- C. Obtain tile from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- D. Interior Finish Classification: All interior wall or ceiling finishes shall be classified as Class A, Class B, or Class C, as based on the results from NFPA 255, Standard Method of Test of Surface Burning Characteristics of Building Materials. Classification shall be clearly identified on all submittal information associated with products of this specification.
- E. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from a single manufacturer and each aggregate from one source or producer.
- F. Source Limitations for Other Products: Waterproofing membrane, adhesives and grout.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inspect the product upon delivery.
- B. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement in ANSI A137.1 for labeling sealed tile packages.
- C. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- D. Store aggregates where grading and other required characteristics can be maintained, and contamination avoided.
- E. Store liquid latexes and emulsion adhesives in unopened containers and protected from freezing.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.
- B. Vent temporary heaters to exterior to prevent damage to tile work from carbon dioxide buildup.
- C. Maintain temperatures at not less than 50 degrees. F in tiled areas during installation and for 7 days after completion unless higher temperatures are required by referenced installation standard or manufacturer's instructions.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Provide tile products from one of the following listed manufacturers.
 - 1. Crossville Ceramics
Crossville, Tennessee
Telephone: 931-484-2110
<https://www.crossvilleinc.com>
 - 2. Daltile
Telephone: 800-375-3403
Chico, California
 - 3. American Olean
Chicago, Illinois
Telephone: 888-268-8453
<https://www.americanolean.com>

B. Provide adhesives and grout from one of the following listed manufacturers.

1. Laticrete
Bethany, Connecticut
Telephone: 800-243-4788
<https://laticrete.com/>
2. Dayton Superior Products
Miamisburg, Ohio
Telephone: 888-977-9600
<https://www.daytonsuperior.com/>
3. Sika
U.S. Headquarters: Lyndhurst, NJ
Telephone: 800-933-7452.
<https://usa.sika.com/>

C. Substitutions: Under provisions of Section 1 60 00, 01 60 00, 01 63 10.

2.2 MATERIALS

A. Provide porcelain tile as manufactured by Crossville Ceramics with the following characteristics:

1. Product-Line: Argent Porcelain Tile
2. Shade and Texture: Argent has a shade variation of V2 Differences among pieces from the same production run are minimal.

B. Wet Dynamic Coefficient of Friction Range (wet slip resistance)

UPS	0.50-60	AcuTest
HON	0.42 0.52	AcuTest

C. Product Performance:

Breaking Strength	>500 lbs.	ASTM C648
Bond Strength	>200 lbs.	ASTM C482
Chemical; Resistance	Unaffected	ASTM C650
Frost Resistance	Resistant	ASTM C1026
Water Absorption:	>0.2J0%	ASTM C373
Scratch Resistance	7	Mohs Scale

D. Color Selections:

1. 6x 12 Cove Base (universal flat top) is available only in limited colors.
2. 4x12 Single Bullnose is available in all colors.

E. Coordinating Trim:

Nominal	Actual (mm)	Thickness (mm)	Finish
6x12 cove base	147x299	9.5	UPS
4x12	96x299	9.5	UPS

F. Refer to Finish Legend and Finish Plan for sizes and thicknesses.

2.3 COMPONENTS

- A. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI standards referenced in "Setting and Grouting Materials" Article.
- B. Colors, Textures, and Patterns: Where manufacturer's standard products are indicated for tile, grout, and other products requiring selection of colors, surface textures, patterns, and other appearance characteristics, provide specific products or materials complying with the following requirements:
 - 1. As selected by Architect from manufacturer's full range
- C. Factory Blending: For tile exhibiting color variations within ranges selected during Sample submittals, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer, unless otherwise indicated.
- E. Where tile is indicated for installation in wet areas, do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.

2.4 SETTING AND GROUTING MATERIALS

- A. Latex Additive: Manufacturer's standard water emulsion, serving as replacement for part or all of gaging water, of type specifically recommended by latex-additive manufacturer for use with field-mixed Portland cement and aggregate mortar bed.
- B. Dry-Set Portland Cement Mortar (Thin Set): ANS A118.1.
- C. For wall applications, provide non sagging mortar that complies with Paragraph C-4.6.1 in addition to the other requirements in ANSI A118.1.
- D. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4, consisting of the following:
- E. Prepackaged dry-mortar mix containing dry, re-dispersible, ethylene vinyl acetate additive to which only water must be added at Project site.
- F. For wall applications, provide non sagging mortar that complies with Paragraph F-4.6.1 in addition to the other requirements in ANSI A118.4.
- G. Sand-Portland Cement Grout: Provide materials complying with ANSI A108.10 and of color required to match architect's sample.
- H. Latex-Portland Cement Grout: Provide product complying with ANSI A118.6 for the following composition and of color indicated:

- I. Prepackaged dry grout mix incorporating dry polymer additive in the form of a re-emulsifiable powder to which only water is added at job site.
 1. Application: Use to grout joints in glazed wall tile and ceramic mosaic floor tile.

2.5 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds (if required): Latex-modified, Portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.
- C. Liquid Applied Waterproofing Membrane: one component liquid applied elastomeric waterproofing membrane. Acceptable products include, but are not limited to:
 1. Laticrete 9235 Waterproof Membrane.

2.6 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
- B. Verify that substrates for setting tile are firm; dry; clean; free of oil, waxy films, and curing compounds; and within flatness tolerances required by referenced ANSI A108 Series of tile installation standards for installations indicated.
- C. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed before installing tile.
- D. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.

- E. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove coatings, including curing compounds and other substances that contain soap, wax, oil, or silicone, that are incompatible with tile-setting materials.
- B. Provide concrete substrates for tile floors installed with thin-set mortar that comply with flatness tolerances specified in referenced ANSI A108 Series of tile installation standards.
- C. Fill cracks, holes, and depressions with trowelable leveling and patching compound according to tile-setting material manufacturer's written instructions. Use product specifically recommended by tile-setting material manufacturer.
- D. Remove protrusions, bumps, and ridges by sanding or grinding.
- E. Waterproofing Membrane: apply to floor and walls of tile showers. Apply in accordance with manufacturers written instructions. Apply in two coats, wet film thickness of 0.5 mm to 0.8 mm per coat. Allow the first coat to dry to touch before applying second coat. Use wet film thickness gage to spot check coated areas.

3.3 WATERPROOF MEMBRANE INSTALLATION

- A. Clean substrate and install membrane in accordance with the manufacturer's written instructions and recommendations.
- B. Install membrane at showers, full height of walls. Install in two coats to nominal 20 mil thickness, or as recommended by the manufacturer. Provide reinforcing fabric at corners and other locations as recommended by the manufacturer.
- C. Provide backer rod and suitable sealant at junctions of surfaces, pipe penetrations and similar conditions.
- D. Refer to Section 07 92 00 for sealing of expansion, contraction, control, and isolation joints in tile surfaces.

3.4 INSTALLATION

- A. ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply to types of setting and grouting materials and to methods indicated in ceramic tile installation schedules.
- B. Follow TCA installation guidelines, found in Handbook for Ceramic, Glass and Stone Tile Installation.
- C. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.

- D. Form accurate intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- E. Joint Pattern: As shown on drawings. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths.
- F. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
- G. For ceramic tile grouts (sand-Portland cement; dry-set, commercial Portland cement; and latex-Portland cement grouts), comply with ANSI A108.10.
- H. Layout
 1. Determine locations of movement joints before starting tile work.
 2. Lay out tile work so as to minimize cuts less than one-half tile in size.
 3. Lay out tile wainscot height to next full tile beyond dimensions shown.
 4. Align wall joints to give straight uniform grout lines, plumb and level.
 5. Align floor joints to give straight uniform grout lines, parallel with walls.
 6. Align floor joints with wall/base joints where tile have a common dimension.
- I. Coordinate installation of tile with movement joints, such as contraction and control joints, or similar. Refer to TCA Article EJ171 Movement Joint Guidelines for Ceramic, Glass, and Stone Tile Handbook, page 430.
- J. Follow manufacturers recommendations and instructions.
 1. Proportional mixes in accordance with latest ANSI Standard Specifications.
 2. Smooth exposed cut tile edges.
 3. Be sure cut tile edges are clean before installing.
 4. Fit tile carefully against trim and around pipes, electric boxes and other built-in fixtures so that escutcheons, plates and collars will completely overlap cut edges.

3.5 FLOOR TILE INSTALLATION

- A. Install tile to comply with requirements in the Floor Tile Installation Schedule, including those referencing TCA installation methods and ANSI A108 Series of tile installation standards.
- B. For installations indicated below, follow procedures in ANSI A108 Series tile installation standards for providing 95 percent mortar coverage.
 1. Tile floors in wet areas

3.6 WALL TILE INSTALLATION

- A. Install types of tile designated for wall installations to comply with requirements in the Wall Tile Installation

- B. Joint Widths: Install tile on floors with joint widths complying with wall tile pattern layout drawings.
- C. Install covered tile base flush with floor tile. Install sealant between covered base and floor tile at perimeter of all rooms.

3.7 CLEANING AND PROTECTING

- A. Clean ceramic tile surfaces, remove foreign matter.
- B. Remove grout residue from tile as soon as possible.
- C. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions.
 - 1. Use only cleaners recommended by tile and grout manufacturers.
 - 2. Protect metal surfaces and plumbing fixtures from effects of cleaning.
 - 3. Flush surfaces with clean water.
- D. When recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile floors.
- E. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear.
- F. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
- G. Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.

3.8 SCHEDULE

- A. A. Installation - Floors - Thin-Set Methods:
 - 1. Over interior concrete substrates, install in accordance with TCA Handbook Method F113, dry-set or latex-portland cement bond coat, with standard grout.
 - 2. Where waterproofing membrane is indicated, install in accordance with TCA Handbook Method F122, with latex-portland cement grout.
- B. Installation - Wall Tile: Thin-Set Methods:
 - 1. Over cementitious backer units install in accordance with TCA Handbook Method W244, using membrane at toilet rooms and W223, organic adhesive.

END OF SECTION

SECTION 09 65 00 - RESILIENT FLOORING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Resilient tile flooring.
- B. Resilient base.
- C. Installation accessories.

1.2 REFERENCE STANDARDS

- A. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2019, with Editorial Revision (2020).
- B. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile; 2004 (Reapproved 2018).
- C. ASTM F1861 - Standard Specification for Resilient Wall Base; 2016.
- D. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 2016a.
- E. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes; 2019a.
- F. ASTM F2195 - Standard Specification for Linoleum Floor Tile; 2018.

1.3 SUBMITTALS

- A. See Section 01 30 00 - 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.
- C. Shop Drawings: Indicate floor patterns.
- D. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.
- E. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. See Section 01 60 00 - Product Requirements, for additional provisions.
2. Extra Flooring Material: 50 square feet of each type and color.
3. Extra Wall Base: 20 linear feet of each type and color.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in installing specified flooring with a minimum of five years documented experience.
- B. Testing Agency Qualifications: Independent firm specializing in performing concrete slab moisture testing and inspections of the type specified in this section.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
- B. Store all materials off of the floor in an acclimatized, weather-tight space.

1.6 FIELD CONDITIONS

- A. Store materials for not less than 48 hours prior to installation in the area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 - PRODUCTS

2.1 TILE FLOORING

- A. Vinyl Composition Tile - Type VCT 1, 2, & 3: Homogeneous, with color extending throughout thickness.
 1. Manufacturers:
 - a. Tarkett North America
Solon, OH.
 2. Minimum Requirements: Comply with ASTM F1066, of Class corresponding to type specified.
 3. Size: 12 by 12 inch
 4. Thickness: 0.125 inch
 5. Color: To be selected by Architect from manufacturer's full range.

2.2 RESILIENT BASE

- A. Resilient Base - Type RB1: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove.
 1. Manufacturers:
 - a. Johnsonite, a Tarkett Company: www.johnsonite.com/#sle.
 2. Height: 6 inch
 3. Thickness: 0.125 inch

4. Finish: Matte.
5. Length: Roll.
6. Color: To be selected by Architect from manufacturer's full range.
7. Accessories: Pre-molded external corners and end stops.

2.3 ACCESSORIES

- A. Adhesives: Waterproof; types recommended by flooring manufacturer.
- B. Moldings, Transition and Edge Strips: Same material as flooring.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
- B. 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.
- C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
 1. Test as Follows:
 - a. Alkalinity (pH): ASTM F710.
 - b. Internal Relative Humidity: ASTM F2170.
 - c. Moisture Vapor Emission: ASTM F1869.
 2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
- D. Verify that required floor-mounted utilities are in correct location.

3.2 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.
- C. Prohibit traffic until filler is fully cured.
- D. Clean substrate.

3.3 INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.

- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
 - 1. Spread only enough adhesive to permit installation of materials before initial set.
 - 2. Fit joints and butt seams tightly.
 - 3. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door. Provide transition strips as indicated.
- E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
 - 1. Resilient Strips: Attach to substrate using adhesive.
- F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- G. Install feature strips where indicated.

3.4 INSTALLATION - TILE FLOORING

- A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.
- B. Lay flooring with joints and seams parallel to building lines to produce symmetrical pattern.
- C. Install square tile to ashlar pattern. Allow minimum 1/2 full size tile width at room or area perimeter.

3.5 INSTALLATION - RESILIENT BASE

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches (45 mm) between joints.
- B. Miter internal corners. At external corners, use pre-molded units. At exposed ends, use pre-molded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.

END OF SECTION

SECTION 09 80 00 - SELF-LEVELING CONCRETE FLOOR UNDERLAYMENT

PART 1 GENERAL

1.1 SUMMARY

- A. This is the recommended specification for Cementitious Self-Leveling Floor Underlayment.

1.2 SECTION INCLUDES

- A. Cementitious Self-Leveling Floor Underlayment
- B. Floor Primer

1.3 QUALITY ASSURANCE

- A. Installer's Qualifications: Installation of self-leveling floor underlayment shall be by an authorized applicator approved for mixing and pumping equipment.

1.4 DELIVERY, STORAGE AND HANDLING

- A. General Requirements: Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

1.5 SITE CONDITIONS

- A. Environmental Requirements: Before, during and after installation of underlayment, building interior shall be enclosed and maintained at a temperature above 50 degrees F and below 100 degrees F until structure and subfloor temperature are stabilized.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cementitious Self-Leveling Poured Floor Underlayment produced by one of the following manufacturers:
 - 1. ARDEX Engineered Cements: FEATHER FINISH
 - 2. Maxxon Corporation
- B. Mix Water: Potable, free from impurities.
- C. Subfloor Primer: ARDEX P 82 ULTRA PRIMER

2.2 MIX DESIGNS

- A. General Requirements: Mix proportions and methods in strict accordance with product manufacturer recommendations.

PART 3 EXECUTION

3.1 PREPARATION

- A. Condition and Cleaning of Subfloor: Subfloor shall be structurally sound. General Contractor shall clean subfloor to remove mud, oil, grease, and other contaminating factors before installation of underlayment.
- B. The substrate must be clean, including the complete removal of existing waxes and sealers, dust, dirt, debris, and any other contaminant that may act as a bond breaker. Substrate preparation must be by mechanical means, such as shot blasting.
- C. Pour to a level of 2 millimeters thick under areas to receive finish flooring materials. Refer to Room Finish Legend on the drawings.
- D. Leak Prevention: Fill cracks and voids with a quick setting patching or caulking material where leakage of self-leveling underlayment could occur.
- E. Priming Subfloor: Prime concrete subfloor using manufacturer's recommended primer. Priming instructions vary according to the porosity of the concrete, multiple coats may be necessary.
- F. Expansion Joints: Under no circumstances should be installed over any moving joints or moving cracks. All existing expansion joints, isolation joints and construction joints, as well as all moving cracks, must be honored up through the underlayment and flooring. Allow joints to continue through the self-leveling underlayment at the same width.

3.2 APPLICATION OF SELF-LEVELING FLOORING

- A. Scheduling: Install after drywall installation unless tenant finish requirements identify partitioning after the pour.
- B. Application: Place self-leveling underlayment from 1/2" to featheredge. Spread and float underlayment to a smooth surface.
- C. Mixing: Add 2-1/2 quarts of clean potable water per 10-pound bag. Do not overwater.
- D. Curing: General Contractor shall provide continuous ventilation and adequate heat. Follow manufacturer's recommended guidelines for curing time and testing for moisture content prior to installation of finish floor goods.
- E. Field Samples: At least one set of 3 molded cube samples shall be taken from each day's pour during the Level-Right application. Cubes shall be tested as recommended by manufacturer in accordance with modified ASTM C 109. Test results shall be available to architect and/or contractor upon request from applicator.

3.5 PROTECTION

- A. Protection from Heavy Loads: During construction, place temporary wood planking over Level-Right wherever it will be subject to heavy wheeled or concentrated loads.

END OF SECTION

SECTION 09 91 00 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and field application of paints, and other coatings.
 - 1. Interior finishes
 - a. Concrete masonry units (CMU).
 - b. Gypsum board.
 - 2. Exterior Finishes
 - a. Concrete, or Concrete masonry units (CMU).
 - b. Steel
 - c. Galvanized metal.
 - d. Aluminum (not anodized or otherwise coated).
 - e. Wood.
 - f. Plastic trim fabrications.
- B. Related Sections:
- C.
 - 1. Section 01 25 00 - Substitution Procedures
 - 1. Section 01 33 00 - Submittal Procedures
 - 2. Section 01 60 00 - Product Requirements
 - 3. Section 09 21 16 - Gypsum Board Assemblies
 - 4. Division 23 - Heating, Ventilating and Air Conditioning, for fabric duct wraps

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications.
 - 2. ASTM D523 - Standard Test Method for Specular Gloss
 - 3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. Master Painter Institute: MPI Manual
- C. Painting and Decorating Contractors of America: PDCA - Architectural Painting Specification Manual.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide interior products that comply with VOC content limits established in Green Seal Standards GS-11 and GC-03:
 - 1. Flats: VOC limit = 50.
 - 2. Non-flats: VOC limit = 150.

- B. Anti-corrosive/anti-rust products applied to metal: VOC limit = 250.

1.4 DEFINITIONS

- A. Definitions of gloss levels below are from "MPI Architectural Painting Specification Manual" (MPI Manual)
 1. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
 2. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
 3. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
 4. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
 5. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
 6. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
 7. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Product Data: In addition to paints and coatings, submit product data for wood stains, wood conditioners, and protective coatings.
- C. Submit a range of samples to demonstrate match for stain color, and protective finish, for Architects preliminary selection.
 1. Submit a range of samples, to indicate sizes, thickness, and finish.
 2. Upon initial selection. submit two 10-inch-long X 5-inch-wide samples of each wood item listed in the schedule.
 3. Maintain approved samples on site during construction period.
- D. Samples: Submit samples for verification of selected colors and finishes. Submit two painted samples, illustrating selected colors and textures for each color and system selected with specified coats cascaded. Submit on hardboard, 8 x 8 inch in size.
- E. Manufacturer's Installation Instructions: Submit special surface preparation procedures, and substrate conditions requiring special attention.
- F. Operation and Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.6 QUALITY ASSURANCE

- A. Surface Burning Characteristics: Fire Retardant Finishes: Maximum 25/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

1.7 FIELD SAMPLE

- A. Field Sample: Architect will designate one interior space and one exterior space to serve as field sample, to demonstrate finished surfaces for each type of coating. Field samples will become the standard by which remaining painted surfaces will be judged. Upon completion painted surfaces will remain as part of the work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01 60 00 for product storage and handling requirements.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. 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.
- D. Paint Materials: Store at minimum ambient temperature of 45 degrees F and maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity and moisture content are outside of manufacturer's recommended limits.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior unless required otherwise by manufacturer's instructions.
- D. Minimum Application Temperature for Varnish and Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 ft candle measured mid-height at substrate surface.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Paints and Coatings:
 - 1. Sherwin Williams
Cleveland, Ohio
216-566-2000
www.sherwin-williams.com

2. The Glidden Company
Strongsville, Ohio
Telephone: 866-708-9180
www.glidden.com
3. Benjamin Moore & Co.
Montvale, New Jersey
Telephone: 866-708-9180
www.benjaminmoore.com

B. Substitutions: Under provisions of Section 01 60 00.

2.2 COMPONENTS

- A. Coatings: Ready mixed, except field catalyzed coatings. Prepare coatings:
 1. To soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coating.
 2. For good flow and brushing properties
 3. Capable of drying or curing free of streaks or sags
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve finishes specified; commercial quality.
- C. Patching Materials: Latex filler
- D. Fastener Head Cover Materials: Latex filler
- E. Protective Coating: Contractor's option

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify surfaces are ready to receive Work as instructed by product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Do not proceed until unacceptable conditions have been corrected.
- C. Test shop applied primer for compatibility with subsequent cover materials.
- D. Measure moisture content of surfaces using electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 1. Gypsum Wallboard: 12 percent.
 2. Masonry, Concrete, and Concrete Unit Masonry: 12 percent

3.2 PREPARATION

- A. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- B. Surfaces: Correct defects and clean surfaces capable of affecting work of this section. Remove or repair existing coatings exhibiting surface defects.
- C. Marks: Seal with shellac those which may bleed through surface finishes.
- D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- E. Aluminum Surfaces Scheduled for Paint Finish: Remove surface contamination by steam or high-pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
- F. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent.
- H. Apply coat of etching primer.
- I. Uncoated Steel and Iron Surfaces: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
- J. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
- K. Do not paint the following items:
 - 1. Do not paint any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices motor and fan shafts.
 - 2. Do not paint over code-required labels, such as Underwriter's Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.
 - 3. Fabricated components as architectural woodwork, wood casework.
 - 4. Shop fabricated or factory built mechanical and electrical equipment and accessories.
 - 5. Prefinished items.
 - 6. Concealed surface: Painting is not required on wall or ceiling surfaces in concealed areas, such as foundation spaces, attics, furred areas, utility tunnels, pipe spaces, duct shafts, and elevator shafts.

7. Finished Metal Surfaces: Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished materials will not require finish painting, unless otherwise specified.

3.3 APPLICATION

- A. Use applicators and techniques suited for paint and substrate indicated.
- B. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
- C. Paint both sides and edges of exterior doors and entire exposed surface of exterior door
- D. Paint entire exposed surface of window frames and sashes.
- E. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- F. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- G. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than the preceding coat unless specified otherwise.
- H. Sand wood and metal surfaces lightly between coats to achieve the required finish.
- I. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying the next coat.
- J. Prime concealed surfaces of interior woodwork with primer paint.
- K. Tint undercoats same color as topcoat but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- L. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING PROTECTION

- A. At the end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 INTERIOR PAINT SCHEDULE

- A. Finish Schedule is shown on the drawings. Refer to the Finish Schedule and Finish Plan, for color and sheen for each product, and other information.
- B. Primer for Hollow Metal Doors
 - 1. SW Pro Industrial Pro-Cryl, Universal Primer
 - 2. For use on steel, galvanized, aluminum and wood.
 - 3. B66 -1300 Series Metal Primer
 - 4. DFT: 1.9 to 3.8 mils
- C. New Gypsum Board Drywall
 - 1. ProMar 200 Zero Interior Latex Semi-Gloss
 - 2. Dirt resistant
 - 3. Coverage: 300 to 400 Square feet per gallon
 - 4. Apply two coats.
 - 5. DFT: 1.5 mils per coat
 - 6. Semi-Gloss
- D. Existing Interior Gypsum Board Walls, Previously Painted:
 - 1. Spot Prime: B51W00450 - Multi-Purpose Interior/Exterior Latex Primer White
 - 2. Notes: Spot prime any stains, marks, etc. before topcoating.
 - 3. Coats: B20 -2600 Series- Pro Mar® 200 Zero VOC Interior Latex Eg Shel
 - 4. DFT: 1.2 mils per coat
- E. New Concrete Block:
 - 1. Provide Sherwin Williams Interior/Exterior Latex Block Filler, with the following characteristics:
 - a. Product Number: B25 W00025
 - b. Allows topcoat on concrete block to be smooth and uniform.
 - c. Dry Film Thickness: 7.7 mils
- F. Existing Concrete Block
 - 1. Preparation: Wash surface thoroughly and allow to dry
 - 2. Pre- Catalyzed Water Based Epoxy Semi-Glass
 - 3. Single component
 - 4. Series Number: K46-1150/2150 Series
 - 5. For use on properly prepared steel, galvanized, aluminum, concrete, masonry, wood and drywall.
 - 6. Dry Film Thickness: 1.3 Mil
 - 7. Note: Touch up miscellaneous surfaces in corridors

- G. Existing Toilet Rooms:
 - 1. Prepare
 - 2. Provide Sherwin Williams Pro Industrial with the following characteristics:
 - a. Pre- Catalyzed Water Based Epoxy Semi-Glass
 - b. Single component
 - c. Series Number: K46-1150/2150 Series
 - d. For use on properly prepared steel, galvanized, aluminum, concrete, masonry, wood and drywall.
 - e. Dry Film Thickness: 1.3 Mils

- H. Exposed Ceiling
 - 1. Preparation: Remove dust, dirt, and grime, clean thoroughly with household cleaners. Allow to dry before applying coating.
 - 2. SW Waterborne Acrylic Dryfall-Flat, B4200001
 - 3. Color: Black
 - 4. DFT: 2.9 to 4.5
 - 5. Dries within ten feet.
 - 6. Minimum two coats

END OF SECTION

SECTION 10 21 13 - PHENOLIC TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Phenolic toilet compartments.
- B. Urinal screens.

1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry: Blocking and supports.
- B. Section 10 28 00 - Toilet, Bath, and Laundry Accessories.

1.3 REFERENCE STANDARDS

- A. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

1.4 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on panel construction, hardware, and accessories.
- C. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall and floor supports, door swings.
- D. Samples: Submit two samples of partition panels, 4 by 4 inch in size illustrating panel finish, color, and sheen.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Phenolic Toilet Compartments:
 - 1. All American Metal Corp - AAMCO: www.allamericanmetal.com
 - 2. Bobrick Washroom Equipment, Inc.: www.bobrick.com
 - 3. Bradley Corporation: www.bradleycorp.com
 - 4. Spec-Rite Designs, LLC; DesignRite Partitions: www.specritedesigns.com

2.2 PHENOLIC TOILET COMPARTMENTS

- A. Toilet Compartments: Factory fabricated doors, pilasters, and divider panels made of solid phenolic core panels with integral melamine finish, floor-mounted headrail-braced.

1. Color: As selected by Architect from manufacturer's full range.
- B. Doors:
 1. Thickness: 3/4 inch
 2. Width: 24 inch
 3. Width for Handicapped Use: 36 inch, out-swinging.
 4. Height: 58 inch
- C. Panels:
 1. Thickness: 1/2 inch
 2. Height: 58 inch
 3. Depth: As indicated on drawings.
- D. Pilasters:
 1. Thickness: 3/4 inch
 2. Width: As required to fit space; minimum 3 inch
- E. Screens: Without doors; to match compartments; mounted to wall with two panel brackets with vertical support/bracing same as compartments.

2.3 ACCESSORIES

- A. Pilaster Shoes: Formed ASTM A666, Type 304 stainless steel with No. 4 finish, 3 inch high, concealing floor fastenings.
 1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.
- B. Head Rails: Hollow stainless steel, 1 inch by 1-1/2 inch size, with anti-grip profile and cast socket wall brackets.
- C. Wall and Pilaster Brackets: Polished stainless steel; manufacturer's standard type for conditions indicated on drawings.
- D. Attachments, Screws, and Bolts: Stainless-steel, tamper-proof type.
 1. For attaching panels and pilasters to brackets: Through-bolts and nuts; tamper proof.
- E. Hardware: Polished stainless steel:
 1. Pivot hinges, gravity type, adjustable for door close positioning; two per door.
 2. Door Latch: Slide type with exterior emergency access feature.
 3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
 4. Coat hook with rubber bumper; one per compartment, mounted on door.
 5. Provide door pull for out-swinging doors.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated.

- B. Verify correct spacing of and between plumbing fixtures.
- C. Verify correct location of built-in framing, anchorage, and bracing.

3.2 INSTALLATION

- A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.
- B. Maintain 3/8 inch to 1/2 inch space between wall and panels and between wall and end pilasters.
- C. Attach panel brackets securely to walls using anchor devices.
- D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.3 TOLERANCES

- A. Maximum Variation from True Position: 1/4 inch
- B. Maximum Variation from Plumb: 1/8 inch

3.4 ADJUSTING

- A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch.
- B. Adjust hinges to position doors in partial opening position when unlatched. Return out-swinging doors to closed position.
- C. Adjust adjacent components for consistency of line or plane.

END OF SECTION

SECTION 10 28 13 – TOILET ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Commercial toilet accessories.
- B. Under-lavatory pipe supply covers.
- C. Robe hooks for toilet stall doors.

1.02 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.
- C. ASTM B86 - Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings; 2018.
- D. ASTM B456 - Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium; 2017.
- E. ASTM C1036 - Standard Specification for Flat Glass; 2016.
- F. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.
- G. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2019b.
- H. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use; 2004, with Editorial Revision (2016).
- I. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; 2015.
- J. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with the placement of internal wall reinforcement and reinforcement of toilet partitions to receive anchor attachments.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Commercial Toilet Accessories:
 - 1. American Specialties, Inc: www.americanspecialties.com/#sle.
 - 2. Bobrick Washroom Equipment, Inc.: www.bobrick.com/#sle.
 - 3. Bradley Corporation: www.bradleycorp.com/#sle.

2.02 MATERIALS

- A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
- B. Stainless Steel Sheet: ASTM A666, Type 304.
- C. Zinc Alloy: Die cast, ASTM B86.
- D. Mirror Glass: Tempered safety glass, ASTM C1048; and ASTM C1036 Type I, Class 1, Quality Q2, with silvering as required.
- E. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

2.03 FINISHES

- A. Stainless Steel: Satin finish, unless otherwise noted.
- B. Chrome/Nickel Plating: ASTM B456, SC 2, polished finish, unless otherwise noted.

2.04 COMMERCIAL TOILET ACCESSORIES

- A. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick tempered safety glass; ASTM C1048.
 - 1. Size: As indicated on drawings.
 - 2. Frame: 0.05 inch (1.3 mm) angle shapes, with mitered and welded and ground corners, and tamperproof hanging system; satin finish.
 - 3. Backing: Full-mirror sized, minimum 0.03 inch (0.8 mm) galvanized steel sheet and nonabsorptive filler material.
- B. Grab Bars: Stainless steel, peened surface.
 - 1. Standard Duty Grab Bars:
 - a. Push/Pull Point Load: 250 pound-force (1112 N), minimum.
 - b. Dimensions: 1-1/4 inch (32 mm) outside diameter, minimum 0.05 inch (1.3 mm) wall thickness, concealed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.
 - c. Finish: Satin.
 - d. Length and Configuration: As indicated on drawings.

2.05 UNDER-LAVATORY PIPE AND SUPPLY COVERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Plumberex Specialty Products, Inc.
 - 2. TCI Products.
 - 3. Truebro, Inc.

- B. Under-Lavatory Pipe and Supply Covers:
 - 1. Insulate exposed drainage piping including hot, cold, and tempered water supplies under lavatories or sinks to comply with ADA Standards.
 - 2. Exterior Surfaces: Smooth non-absorbent, non-abrasive surfaces.
 - 3. Construction: 1/8 inch (3.2 mm) flexible PVC.
 - a. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
 - b. Comply with ICC A117.1.
 - c. Microbial and Fungal Resistance: Comply with ASTM G21.
 - 4. Color: White.
 - 5. Fasteners: Reusable, snap-locking fasteners with no sharp or abrasive external surfaces.

2.06 ROBE HOOKS

- A. Provide one robe hook on inside surface of toilet stall doors. Reference Toilet Accessory Schedule below.
 - 1. Mounting: 54 inches above floor

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.
- C. Verify that field measurements are as indicated on drawings.
- D. See Section 06 10 00 for installation of blocking in walls and ceilings.

3.02 PREPARATION

- A. Deliver inserts and rough-in frames to site for timely installation.
- B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.

3.04 PROTECTION

- A. Protect installed accessories from damage due to subsequent construction operations.

3.05 TOILET ACCESSORY SCHEDULE

Description	Bobrick	A.S.I.	Bradley
Accessible Mirror	B-165	0535	740
Paper Towel Dispenser	Furnished by Owner Installed by Contractor		
Toilet Paper Dispenser	Furnished by Owner-Installed by Contractor		
Soap Dispenser	Furnished by Owner-Installed by Contractor		
Grab Bar (42")	B-6806.99 x 42	3800P	81222
Grab Bar (36")	B-6806.99 x 36	3800P	81222
Grab Bar (18") Vertical	B-6806.99 x 18	3800P	81222
Robe Hook, Dbl Satin	B-76727	7345-S	9124

END OF SECTION 10 28 00