Request for Proposals for a Term Contract for

RFP #16-01

Roofing Repair and Replacement

Location
Abilene Educational Center
717 East Industrial Blvd
Abilene, TX 79602

ISSUED BY

CISCO COLLEGE

TABLE OF CONTENTS

RFP#16-01 ROOFING REPAIR and REPLACEMENT

RFP Documents – PROPOSAL INFORMATION

- Table of Contents
- Opening date and time, Inquiries, Legal Company Name & Info
- Qualifications, Felony Disclosure, Texas Resident Info, HUB Info
- Experience
- Solicitation Schedule, Proposal Submittal Info
- Ranking & Selection, Agreement Award
- Standard Terms and Conditions for RFP#16-01

OPENING DATE & TIME

Sealed proposals, subject to the terms and conditions of this Request for Proposals, for the above referenced will be received until

4 PM, TUESDAY, MARCH 22, 2016

at which time the proposals will be opened and recorded. Proposals received after the specified time will be disqualified. Faxed and/ or emailed proposals are not accepted.

INQUIRIES

All questions regarding this Request for Proposals should be directed to Beverly Massey, Director of Purchasing and Payment Services, prefererably via email @beverly.massey@cisco.edu. She will discuss inquiries with the purchasing committee including the architect for this RFP and respond to the inquirer, via email. If applicable all q&a will be posted to our website Cisco College.edu, Purchasing and Payment Services- RFP#16-01marked as addendum inquiry with answer.

Legal Name of Contracting Company | Website Address

Contact Person | Title

Telephone Number | Facsimile Number | E-Mail Address

Complete Mailing Address | City/State | Zip

Authorized Signature | Printed Name

QUALIFICATIONS

1. Company's Dun & Bradstreet (D&B) number:_____

2. List the following -

A: Contract Administrator_____

Name Title

Telephone Number Facsimile Number E-Mail Address

B: Order Desk Contact:_____

Name Title

Telephone Number Facsimile Number E-Mail Address

3. Provide information regarding if your company has been involved in any litigation, bankruptcy, or reorganization in the past seven (7) years:

4. Felony Conviction Disclosure - Subsection (a) of Section 44.034 of the Texas Education Code, which is applicable to community colleges in the State of Texas, states:

"A person or business entity that enters into an Agreement with a school district must give advance notice to the district if the person or an owner or operator has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony."

"A school district may terminate an Agreement with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the Agreement."

Please check one of the following:

_____Offeror is a publicly held corporation. (Advance notice requirement does not apply to publicly held corporation.)

_____Offeror is not owned or operated by anyone who has been convicted of a felony.

_____ Offeror is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of felon(s):_____

Conviction details:_____

5. Texas Resident Information: Chapter 2252, Subchapter A, of the Texas Government Code establishes certain requirements applicable to proposers who are not Texas residents. Under the statute, a "resident" offeror is one whose principal place of business is in Texas, including one whose ultimate parent company or majority owner has its principal place of business in Texas.

Location of Principal Place of Business (City/State):_____

Section 44.031(b) of the Texas Education Code establishes certain criteria that a community college in the State of Texas must consider when determining to whom to award an Agreement. Among the criteria for certain Agreements is whether the vendor or the vendor's ultimate parent or majority owner (i) has its principal place of business in Texas; or (ii) employs at least 500 people in Texas.

If neither bidding company nor the ultimate parent company or majority owner has its principal place of business in Texas, does offeror, ultimate parent company, or majority owner employ at least 500 people in Texas?

_____ Yes _____ No

What is the specified amount or percentage? _____

6. MWBE/HUB Business Certification: A proposer that has been certified as a Minority/Women Business Enterprise (also known as a "Historically Underutilized Business" or "HUB" and all referred to in this form as a "MWBE") is encouraged to indicate its MWBE certification status when responding to this solicitation. Offeror certifies that company has been certified in the following categories: (Please check all that apply)

_____My company has **NOT** been certified as a MWBE.

_____Minority Owned Business _____ Women Owned Business

Certificate Number:_____ Name of Certifying Agency: _____

Disadvantaged Business Enterprises (DBEs) will be afforded equal opportunities to submit bids and will not be discriminated against on the grounds of race, color, sex, disability, or national origin in consideration of an award.

EXPERIENCE

1. COOPERATIVE PROGRAM PARTICIPATION: Please place a checkmark next to the cooperative purchasing program that has awarded your company a current Agreement:

_____ TASB Buyboard	_____ Houston-Galveston Area Council
_____ NJPA	_____ TIPS/TAPS
_____ The Cooperative Purchasing Network	_____ E & I Cooperative

_____Other Cooperative: _____

_____I have no previous experience working with a cooperative.

2. Year business was incorporated or established:_____

3. SIMILAR CONTRACTS & REFERENCES: Provide the names of five (5) contracts awarded within the last three (3) years in which your firm provided similar goods or services as proposed under this RFP.

Entity Name:_____

Goods/Services Provided: _____

Estimated Value of Contract:_____

Customer Contact Name: _____

Customer Contact Email: _____

Customer Contact Phone: _____

Entity Name:_____

Goods/Services Provided: _____

Estimated Value of Contract: _____

Customer Contact Name: _____

Customer Contact Email: _____

Customer Contact Phone: _____

Entity Name:_____

Goods/Services Provided: _____

Estimated Value of Contract: _____

Customer Contact Name: _____

Customer Contact Email: _____

Customer Contact Phone: _____

Entity Name:_____

Goods/Services Provided: _____

Estimated Value of Contract: _____

Customer Contact Name: _____

Customer Contact Email: _____

Customer Contact Phone: _____

Entity Name:_____

Goods/Services Provided: _____

Estimated Value of Contract: _____

Customer Contact Name: _____

Customer Contact Email: _____

Customer Contact Phone: _____

SOLICITATION SCHEDULE:

PRE PROPOSAL MEET @ LOCATION	**MAR 14, 2016-11AM**
QUESTION AND ANSWER DEADLINE	**MARCH 17, 2016-4PM**
Opening Date for RFP	**4 PM Tuesday, March 22, 2016**
Award Notification	**March 24, 2016**

Note: With the exception of the time and date to open RFPs, the above schedule is an estimate. The estimated schedule may be modified as schedules and conditions warrant.

TERMS OF AGREEMENT

The term of the Agreement will begin upon execution of this Agreement by Cisco College. The initial period will be for the term of the contract for the year 2016. Either party may terminate the Agreement without cause, with thirty (30) days written notice and contractor's fulfillment of all outstanding purchase orders received prior to the termination date.

TECHNICAL SPECIFICATIONS

See Title Luther, Architect Sections-Divisions 0 - 7

PRE-PROPOSAL MEETING @ THE LOCATION FOR SITE INSPECTION Q&A

MARCH 14, 11AM-AEC, 717 E Industrial Blvd, Abilene,TX

PROPOSAL SUBMITTAL

Proposals shall be submitted in hard copy paper format using this entire Request for Proposal document to insure complete uniformity of wording of all proposals. Proposals may be rejected if they show any omissions, alterations in wording, conditional clauses, or irregularities of any kind on the Proposal Form. Additional original content information may be attached to the form to further explain the proposal as necessary. Submittal shall include one (1) original, which shall be manually signed in ink by a person having the authority to bind the firm in an Agreement. Any proprietary or confidential information on the proposal document must be clearly marked as such and kept separate in the submittal and marked "Confidential" to separate from the rest of the proposal.

Sealed proposals will be accepted at:

Cisco College

ATTN:PURCHASING
101CollegeHeights
Cisco, Texas 76437

until the RFP closing time and date. At that time the proposals will be publicly opened and read aloud. The proposal packages will be time/date stamped which shall be the official time of receipt for all packages received. Any proposal

package received after the time and date specified or at any other location shall be considered void and not accepted.
Oral, telegraphic, telephonic, e-mailed, or facsimile responses shall NOT be accepted.

Proposals must be enclosed in a sealed package. The outside of the package shall be labeled as follows:

CISCO COLLEGE, ATTN: PURCHASING: TIME SENSITIVE
RFP # 16-01 ROOFING REPAIR AND REPLACEMENT

Include this entire RFP document with your proposal. Failure to submit all pages of this document may result in disqualification of the proposal. By submittal of this PROPOSAL, offeror certifies to the best of his/her knowledge that all information is true and correct.

RANKING AND SELECTION

Each proposal will be evaluated and ranked within 5 days of the opening date. The evaluation criteria used for ranking is as follows:

Proposed Product/Service	30 points
Qualifications	10 points
Past Experience	20 points
Cost	40 points

SUBMISSION OF POST-PROPOSAL INFORMATION

Upon request by Cisco College, each offeror shall, within the time frame requested, submit any additional information required to evaluate a proposal, including any information on subcontractors.

AGREEMENT AWARD

By submitting a proposal in response to this solicitation, offeror understands that it has submitted an offer to contract with Cisco College and agrees to all of the Standard Terms and Conditions.

Notification of award will be sent to successful offerors and posted on Cisco College website.

Upon an award, a contract will be executed. Execution of the contract will take place after award.

STANDARD TERMS AND CONDITIONS REQUEST FOR PROPOSALS

DEFINITIONS

1.1.1 "Offeror" refers to submitter.

1.1.2 "Contractor" refers to successful offeror awarded a contract.

1.1.3 "Vendor" refers to a business selling goods or services.

1.2 CONTACT INFORMATION

Cisco College is always conscious and extremely appreciative of your time and effort in preparing your proposal.

Any questions regarding this solicitation should be directed to:

Beverly Massey
beverly.massey@cisco.edu
Director of Purchasing

Cisco College
101 College Heights
Cisco, TX 76437

1.3 ADDENDA

Any interpretations, corrections and/or changes to this Request for Proposal or extensions to the opening/receipt date will be made by addenda issued by Cisco College. An addendum will be published and distributed via Cisco College website @ www.cisco.edu. RFP posting to all plan holders of record. However, it shall be the sole responsibility of the offeror to verify issuance/non-issuance of addenda. Submittals shall acknowledge receipt of all addenda.

1.4 PROPOSAL PREPARATION

Unless otherwise indicated in this solicitation, an "all or nothing" proposal is not acceptable and will be rejected. Offeror must be willing to negotiate an award for any portion or combination of proposal items.

When unit price differs from extended price, the unit price prevails.

In case of a discrepancy between the product number and description, the description shall take precedence.

When manufacturers are named in the specification, they are not meant to limit competition, but to define the minimum standard, quality, and performance of the item specified. All materials supplied will be new, first quality industrial-grade products.

Offerors taking exception to the specifications shall do so at their own risk. By offering substitutions, offeror shall state these exceptions in the proposal submittal. Exception/substitution, if accepted, must meet or exceed specifications stated therein. Cisco College reserves the right to accept or reject any and/or all of the exception(s)/substitution(s) deemed to be in the best interest of Cisco College.

The apparent silence of any part of the specification as to any detail or to the apparent omission from it of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of the specification shall be made on the basis of this statement.

When specific products are specified, and an offeror is proposing products other than those specified, Cisco College reserves the right to request a sample/demo of the product for evaluation. In such cases, the offeror must provide a sample/demo of the product at no charge to Cisco College within three (3) days of the request, and is responsible for return freight of the product after the evaluation. Failure to provide an evaluation product within the three (3) day period may disqualify the offeror from further consideration. **If the offeror offers a product other than that specified, specifications must be submitted as an attachment with the proposal submittal. Proposals not listing manufacturer and manufacturer numbers specified as an alternate on the Proposal Form will be considered as responding according to specification, and if awarded, will be required to provide exactly what was specified.**

1.5 DELIVERY OF PROPOSALS

When using a delivery service that provides its own shipping package, such as UPS or FedEx, the RFP number, name, and opening date must be included on the outside of the shipping package as well. Unlabeled proposals may not be properly directed and not reach the sealed proposal area before the RFP opening date and time. Cisco College is not responsible for misdirected packages. Cisco College reserves the right to waive any technicalities or informalities in the solicitation process deemed to be in the best interests of Cisco College. ***Please allow sufficient time for delivery to our rural area.***

1.6 VALIDITY AND ACCEPTANCE

The proposal shall be subject to acceptance for a period of ninety (90) days unless an extension is requested by Cisco College and approved by the offeror. Cisco College

reserves the right to reject any or all proposals or parts of proposals. Submittals cannot be altered or amended after submission deadline unless proposal has been selected for negotiation with Cisco College.

1.7 EVALUATION AND AWARD

Cisco College may make such investigations as it deems necessary to determine the ability of the offeror to provide satisfactory performance in accordance with proposal requirements, and the respondent shall furnish to Cisco College all such information and data for this purpose at Cisco College's request.

Minimum standard for responsible prospective offerors are as follows:

1.7.1 Have adequate financial resources, or the ability to obtain such resources

1.7.2 Be able to comply with the required or proposed schedules and project requirements

1.7.3 Have a satisfactory record of performance for contracts of similar scope (complete attached reference sheet)

1.7.4 Have a satisfactory record of integrity and ethics

1.7.5 Competitive pricing

1.7.6 Completeness and thoroughness of proposal submittal

Cisco College reserves the right to waive any or all irregularities, formalities, or other technicalities and to be the sole and independent judge of quality and suitability of any products or services offered. Cisco College may accept or reject a proposal in its entirety, or may reject any part of, without affecting the remainder of the proposal.

In determining to whom to award a contract, Cisco College shall proceed as follows:

1.8 DELIVERY

Orders shall be delivered within the time proposed in the submittal or the member reserves the right to cancel orders. Shipments should be scheduled for delivery between 8:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays.

1.9 PROFESSIONAL SERVICES

This solicitation does include services that are required to be procured under Chapter 2254 Professional Services Procurement Act of the Texas Government Code.

1.10 EXCLUSIVITY

Any contract resulting from this solicitation is non-exclusive. Cisco College reserves the right to obtain like goods and services from other vendors.

2.0 CONTRACT TERMS

2.1 ASSIGNMENT

The contractor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Cisco College, except to the extent necessary to comply with proper requests for information from an authorized representative of the federal, state or local government. Contractor shall not advertise, publish or otherwise make reference to the existence of a contract between Cisco College and Contractor for purposes of solicitation government entities except when contacting Cisco College. Contractor may refer to Cisco College as an evaluating reference for purposes of establishing a contract with other entities.

2.2 BINDING AGREEMENT

This proposal, when properly accepted by Cisco College, shall constitute a contract equally binding between the successful offeror and Cisco College. No different or additional terms shall become a part of this contract with the exception of a Change Order issued by Cisco College.

2.3 SUPPLEMENTAL AGREEMENTS

An awarded contractor for Cisco College may enter into a separate supplemental agreement for the purpose of quantifying specific goods and services for a particular project beyond those specified in this solicitation. Such supplemental agreement shall be exclusively between the contractor and Cisco College, its agents, and employees shall not be made party to any claim for breach of said agreement.

2.4 TERMINATION

The contract shall remain in effect until contract expires or is terminated by either party with a thirty (30) day written notice prior to any cancellation, except for breach of contract. Notice of termination shall be transmitted via certified mail to the other party's designated representative. Notification must state reason for cancellation. Cisco College reserves the right to award cancelled contract to the next responsible low offeror or to purchase the service elsewhere as it deems most advantageous to Cisco College.

Cisco College may terminate a contract, in whole or in part, whenever Cisco College determines that such termination is in the best interest of Cisco College, without showing cause, upon giving written notice to the contractor. The contractor shall not be reimbursed for any profits which may have been anticipated but which have not been earned up to the date of termination.

2.5 ENFORCEMENT

Cisco College reserves the right to enforce the performance of this contract in any manner prescribed by law and deemed to be in the best interest of Cisco College in the event of breach or default of this contract. Cisco College reserves the right to terminate the contract immediately in the event the contractor fails to meet schedules or otherwise perform in accordance with these specifications.

2.6 DEFECTIVE PRODUCTS

The ordering Cisco College shall have the authority to disapprove or reject defective products. If required by Cisco College, contractor shall promptly, as directed, correct all defective products and shall bear all direct, indirect and consequential costs of such correction.

2.7 AUDIT

Cisco College reserves the right to audit the records and performance of this contract during the term of the contract.

2.8 GOVERNING LAW AND SEVERABILITY

The laws of the State of Texas shall govern this contract. Should any portion of this contract be in conflict with the laws of the State of Texas, the State laws shall invalidate only that portion. The remaining portion of the contract shall remain in effect.

2.9 FREIGHT

Freight will be F.O.B. Destination/Inside Delivery/Freight Prepaid and Added. Contractor shall be responsible for all claims against the carrier for all freight and/or drayage damage. Cisco College assumes no liability for goods delivered in damaged or unacceptable condition. Contractor shall handle all claims with carriers, and in case of damaged goods, shall ship replacement goods immediately upon notification to Cisco College of damage. Shipments shall be made to the specific locations described in the ordering Cisco College purchase order.

If the contractor is required to deliver to a specified room, the contractor shall remove all packing and debris that results from set-up and installation.

2.10 ORDERS

Contractor shall provide the ordering contact information if different from that shown on the submittal. A purchase order(s) shall be generated by Cisco College and issued directly to the contractor with authority to obligate Cisco College member's funds.

Contractors supplying goods or services without having first received a valid purchase order do so at their own risk.

The ordering Cisco College shall be invoiced directly by the contractor. All invoices for this Cisco College contract that was offered as a percentage discount from list MUST state Cisco College contract number, list unit price, applicable contract discount, and net unit price for each item ordered from Cisco College contract. Invoices that do not state the above required information will be returned unpaid for correction.

2.11 PAYMENT

Payment will be made in accordance with Texas Government Code, Subchapter B, Payments and Interest, Chapter 2251.021 (b). Terms are to be 30 days net, although contractor may in addition offer early payment discounts for use by Cisco College.

Cisco College is by statute a tax-exempt public institution. Therefore, the proposal price shall not include sales taxes, nor shall sales taxes be calculated on the invoices.

2.12 INDEMNIFICATION

Contractor shall defend, indemnify and save harmless Cisco College, and all its officers, agents and employees who are participating in this contract from all suits, claims, actions, damages, demands or other demands of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the contractor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from award. Contractor shall pay any judgment with cost which may be obtained against Cisco College and participating entities growing out of such injury or damages.

2.13 LAWS AND REGULATIONS

All equipment and services furnished under this contract shall comply with applicable federal, state, and local laws, ordinances and regulations. The contractor shall give all notices and obtain all necessary permits. Without obtaining permits or giving such notice to the authorized ordering Cisco College, the contractor shall bear all costs arising from such failure to give notice.

2.14 ESCALATION CLAUSE

Pricing shall remain consistent during the initial term of the contract for listed items. For percent discount contracts, the percentage discounts shall remain consistent through the entire term of the contract. For unit price contracts, Cisco College may consider a unit price redetermination no earlier than thirty (30) days after award, thereafter once during each term of the contract, and at the anniversary date of the contract. All requests for price redetermination shall be in writing to Cisco College, Director of Purchasing and shall include documents supporting price redetermination such as Manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A., Insurance Coverage Rates, etc. The offeror's past performance of honoring contracts at the offered price will be an important consideration in the evaluation of the lowest and best offer. Cisco College reserves the right to accept or reject any/all of the price redetermination as it deems to be in the best interest of Cisco College. All other terms and conditions remain the same for the duration of the contract. Price escalations are only accepted upon issue of an executed contract Change Order by Cisco College.

If during the life of the contract, the contractor's net prices to its customers for the same product(s) and/or services shall be reduced below the contracted price, it is understood and agreed that Cisco College shall receive such price reduction.

2.15 DISCONTINUANCE & OBSOLESCENCE

Models proposed may be subject to change due to discontinuance/obsolescence without notice. Contractor shall immediately notify Cisco College in writing when products are discontinued. Failure to make such notification shall result in the contractor providing the upgraded or comparable model at contracted price as approved by Cisco College.

2.16 CONTRACT

Any award from this solicitation does not become a contract unless and until the proposal is accepted by Cisco College and it's Board of Directors. Notice to the successful offeror will be made through the issuance of a written notice of award and final execution of the contract by Cisco College, whereupon the Contract becomes binding and enforceable. Contracts for awarded proposals will not be executed until the awarded offeror submits all requested contract price sheets or catalogs to Cisco College for distribution to the Purchasing Committee. Contractor may submit subsequent changes to the catalog price sheets when they become available. Catalog price increases are not valid until submitted to Cisco College. The Contract is then utilized by the Purchasing Director at Cisco College, followed by a signed purchase order for the awarded products or services. Contractor must honor all purchase orders issued by Cisco College the Contract term in accordance with these Terms and Conditions.

2.17 FORCE MAJEURE

Force Majeure means a delay encountered by a party in the performance of its obligations under this agreement, which is caused by an event beyond the reasonable control of that party. Without limiting the generality of the foregoing, "Force Majeure" shall include but not be restricted to the following types of events: acts of God or public enemy; acts of governmental or regulatory authorities; fires, floods, epidemics or serious accidents; unusually severe weather conditions; strikes, lockouts, or other labor disputes; and defaults by subcontractors. In the event of a Force Majeure, the affected party shall not be deemed to have violated its obligations under this

agreement, and the time for performance of any obligations of that party shall be extended by a period of time necessary to overcome the effects of the Force Majeure, provided that the foregoing shall not prevent this agreement from terminating in accordance with the termination provisions. If any event constituting a Force Majeure occurs, the affected party shall notify the other parties in writing, within twenty-four (24) hours, and disclose the estimated length of delay, and cause of the delay.

2.18 AWARD PROTEST

Cisco College Board of Directors decision on awards is final. Any protest of a solicitation or its award must be received within seven days after notice of the award is posted on Cisco College website.

2.19 BONDS

Cisco College WILL require a performance bond or a payment bond from a contractor as applicable to the contract. The cost of such bond shall be in addition to the awarded contract price.

2.20 INSURANCE

Cisco College WILL require a contractor to carry and provide certificate of proof of liability insurance and workers compensation coverage when applicable.

2.21 BACKGROUND CHECKS

Cisco College may in certain circumstances require background checks on contractor's employees who will have direct contact with students or staff, or for other reasons, and may require contractor to pay the cost of obtaining criminal history record information.

2.22 INTELLECTUAL PROPERTY

If any claim is or action or proceeding is brought against Cisco College that alleges that any part of the products supplied by the contractor infringes or misappropriates any United States intellectual property, intangible asset, or other proprietary right, title or interest including, without limitation, any copyright or patent or any trade secret right, title, or interest, or violates any other contract, license, grant, or other proprietary right of any third party the contractor shall defend, and hold the harmless Cisco College and Cisco College member against any such claim or action and shall indemnify Cisco College against any liability, damages and costs resulting from the claim.

2.23 DEFAULT AND TERMINATION OF CONTRACT

Either party may terminate the contract in whole or in part in the event of the other party's failure to perform its obligations under the contract through no fault of the terminating party. The defaulting party shall be given at least thirty (30) days prior written notice of the default and intent to terminate Default includes the contractor's failure to timely remit the service fee due to Cisco College.

In addition, Cisco College may terminate the contract at any time without cause. If Cisco College terminates a contract, in whole or in part, Cisco College reserves the right to award the terminated contract to another offeror that Cisco College determines to provide best value to its members.

Neither Cisco College nor a member college will be liable to the contractor for any damages including, but not limited to, loss of profits or loss of business, or any special, consequential, exemplary, or incidental damages resulting from termination based on the contractor's default or breach of contract.

If failure or delay of performance is caused by a Force Majeure event, Cisco College may terminate the contract in whole or part.

Cisco College may cancel a purchase order or refuse to accept delivery for a contractor's breach of the terms or conditions included in a Cisco College purchase order or supplemental agreement.

2.24 ASSIGNMENT

A contractor may not sell, assign, transfer, convey or subcontract any responsibility or obligation created by this contract without Cisco College's prior written consent. Any attempted sale, assignment, transfer, conveyance or subcontracting of any part of the Contract except in compliance with this section is void and ineffective.

2.25 VENUE

This contract is governed by the laws of the State of Texas, including the Uniform Commercial Code as adopted in the State of Texas. Venue for any litigation concerning Cisco College and the contract awarded shall be in Eastland County, Texas.

2.26 FISCAL FUNDING

State of Texas statutes prohibits the obligation and expenditure of public funds beyond the fiscal year for which a budget has been approved. Cisco College reserves the right to rescind a purchase order or other agreement to purchase goods or services under the contract at the end of the member's fiscal year if it is determined that funding is not available to extend the agreement. This clause has an exception for being a term contract that should not extend over more than the current fiscal year.

2.27 DEBARMENT

Any bidder or any principals of a bidding company that are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal or State Government entity shall be considered ineligible to be awarded a contract by Cisco College.

PAGE INTENTIONALLY LEFT BLANK

Roofing Replacement
Cisco College
Abilene, Texas

TITTLELUTHERPARTNERSHIP

PARKHILLSMITH&COOPER PSC

PROJECT: **Cisco College Roofing Replacement**

OWNER: **Cisco College**

ARCHITECT: Tittle Luther/Parkhill Smith & Cooper, Inc.
340 Beech Street
Abilene, Texas 79601
325/673-8178

February 26, 2016

© PSC 2016

03/02/16

DIVISION 0 - BIDDING AND CONTRACT REQUIREMENTS

00000 Index
00010 Advertisement for Proposals
00100 Instructions to Bidders
00400 Proposal Form
00500 Agreement Form
00600 Bid Bond
00700 General Conditions AIA Doc. A201
00750 Supplemental General Conditions regarding Davis-Bacon Labor Wage Rates and Required Workers' Compensation Coverages

DIVISION 1 - GENERAL REQUIREMENTS

01010 Summary of Work
01020 Allowances
01030 Alternates
01035 Modification Procedures
01045 Cutting and Patching
01315 Project Management and Coordination
01340 Shop Drawings, Product Data and Samples
01370 Schedule of Values
01420 Reference Standards
01500 Construction Facilities and Temporary Controls
01600 Products (Transportation & Storage)
01630 Product Options and Substitutions
01700 Execution Requirements
01701 Contract Closeout Procedures

01710 Cleaning
01720 Project Record Documents

DIVISION 2 - SITE WORK

02070 Selective Demolition

DIVISION 3 - CONCRETE - None this Specification

DIVISION 4 - MASONRY - None this Specification

DIVISION 5 - METALS - None this Specification

DIVISION 6 - WOOD AND PLASTIC

06105 Miscellaneous Carpentry

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07520 Membrane Re-Roofing Preparation
07527 SBS-Modified Bituminous Sheet Roofing
07600 Flashing and Sheet Metal
07900 Joint Sealants

PART 1 - GENERAL

1.1 PROJECT IDENTIFICATION:

Project:	**Cisco College - Roofing Replacement**
Owner:	**Cisco College**
Architect:	Tittle Luther/ Parkhill Smith & Cooper, Inc. 340 Beech Street Abilene, Texas 79601 (325) 673-8178
Site:	Cisco College Abilene Education Center 717 E. Industrial Blvd. Abilene, TX 79602

1.2 GENERAL DESCRIPTION OF WORK:

A. Install cover board and two plies roofing on approximately 63,000 square feet of existing roof.

1.3 TYPE OF BID:

A. Submit proposals in lump sum including designated Allowances.

1.4 TIME AND PLACE OF BID RECEPTION:

A. **Competitive Sealed Proposals** will be received by Cisco College at the office of Beverly Massey, Director of Purchasing and Payment Services, Cisco College, 101 College Heights, Cisco, Texas 76437 until 4:00 PM, Tuesday, March 22, 2016. Fax submissions will not be considered. **NOTE: Fedex, UPS, etc. have LIMITED schedules for delivery to our rural address, please allow sufficient time to arrive.**

1.5 PRE BID CONFERENCE

A. A pre-bid conference will be held at 11:00 AM, Monday, March 14, 2016 at the job site. Attendance is recommended but not mandatory since access to roof may not be available at other times.

1.6 BID SECURITY:

A. Bid security in the amount of five percent (5%) of the total largest proposal must accompany each proposal in accordance with the Instruction to Bidders.

1.7 BIDDERS' QUALIFICATION:

A. Successful Contractor will be required to provide a Performance Bond and Labor and Material Payment bond in an amount equal to 100% of the total contract amount. Procure Bonds from corporate surety approved by Owner.

1.8 OWNER'S RIGHT TO REJECT PROPOSALS:

A. Owner reserves the right to reject any or all proposals or waive any informalities and irregularities. Owner reserves the right to contract within 30 days following bid opening. No proposals may be withdrawn during this time.

1.9 LABOR STANDARDS AND WAGE RATE SCHEDULES:

A. Bidder's attention is called to State and Federal laws regarding "Conditions of Employment" and "Minimum-Prevailing Wage Rates" that apply to work under this contract.

1.10 EXAMINATION AND PROCUREMENT OF DOCUMENTS:

A. Bidding Documents may be examined at Architect's office. PDF bidding documents are available for download at no cost. Contact ehollenbeck@team-psc.com for downloading instructions.

B. Bidding Documents are on file in the following plan rooms:

AGC - Abilene
1326 South 14th, Suite G
Abilene, Texas 79602
676-7447
Fax 325/676-0107

iSqFt
14305 Inwood Road
Dallas, TX 75244
800/364-2059 ext 8105
www.isqft.com

Reed Construction Data
30 Technology Parkway,
South #100
Norcross, GA 30092-2912
www.reedplans.com

PROJECT: **Cisco College - Roofing Replacement**

NAME OF BIDDER: _____

The Undersigned, in compliance with Advertisement for Proposals, has received and examined Contract Documents and conditions regarding this project and, having examined site of this project, propose to:

1. Hold proposal valid for at least of 30 days after submission date.
2. Enter into and execute a contract, if awarded on the basis of this proposal and to furnish required bonds and insurance coverage.
3. Accomplish Work in accordance with Contract Documents.
4. Complete Work by the time stipulated in Proposal and under conditions described in General and Supplementary General Conditions.
5. Accept provisions of Instructions to Bidders regarding disposition of Bid Security.

I acknowledge receipt of the following addenda: _____

BASE PROPOSAL (Includes all labor and materials for Roofing work):

(numerical dollars) _____

(written in words) _____

CONSTRUCTION DURATION:

_____

DEVIATIONS TO CONSTRUCTION DOCUMENTS: Contractor shall list proposed deviations to the construction documents. Methods or products other than that specified shall not be considered a deviation to the construction documents when "Architect or Engineer Approved Equal" is noted as allowed and the substituted method or product meets or exceeds all requirements and intent of the specified method or product and construction documents:

_____

WARRANTY RESPONSE: Contractor shall note the maximum time required for arrival at the project site to address warranty issues after notification from the Owner:

_____(hours)

ACCEPTANCE: Upon notification of acceptance of proposal, Undersigned agrees to execute a contract for above work, for stated compensation. Undersigned further agrees, if awarded contract, to execute and deliver to Architect within 10 days after contract signing, a Performance Bond and a Labor and Material Payment Bond equal to 100% of contract sum in accordance with General and Supplementary Conditions.

Respectfully submitted,

_____

Name of Contracting Firm Address

BY:_____

Seal -- if bid is by a corporation.

Contract Form of Agreement between the Owner and Contractor shall be:

THE STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR - AIA Document A101, 2007 Edition.

Copies of this Contract form are on file in Architect's office for review by interested parties.

NAME OF PROJECT: **Cisco College - Roofing Replacement**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____ _____ as Principal, and _____ as

Surety, are hereby held and firmly bound unto_____as Owner in the penal sum of _____ for the payment of which,

well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed, this_____day of _

_____. The condition of the above obligation

is such that whereas the Principal has submitted to _____a certain bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for the _____
.

NOW, THEREFORE,

a. If said Bid shall be rejected, or in the alternate,

b. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of time within which the Owner may accept such bid; and, said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____(L.S.)

_____
Surety

SEAL

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Progress meetings
   2. Specification formats and conventions.
   3. Use of premises.
   4. Owner's occupancy requirements.

1.2 RELATED REQUIREMENTS:

A. Document 00100 - INSTRUCTIONS TO BIDDERS.
B. Document 00500 - AGREEMENT FORMS.
C. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS.
D. Section 01020 - ALLOWANCES.

1.3 PROJECT PROGRESS MEETINGS

A. Frequency of meetings shall be determined by Architect, Owner and Contractor at Pre-Construction Conference but shall not be less than monthly.
B. Contractor shall notify Architect, Owner's Representative, and applicable sub-contractors 2 days prior to meeting.
C. Contractor shall organize progress meetings to discuss project progress, project coordination and potential problems.

1.4 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
   1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
   2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
   1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
   2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.5 USE OF PREMISES

A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.

B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits: Confine constructions operations to immediate areas under construction to allow Owner's use of facilities and other facilities within stadium for normal operations.
2. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

1.6 OWNER'S OCCUPANCY REQUIREMENTS

A. Full Owner Occupancy: Owner will occupy site and existing buildings during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION - (Not Used)

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:

A. Include in Contract Sum all Allowances stated in Contract Documents.

B. Allowance Value Summary:

1. Contingency: $10,000.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.

1.3 RELATED REQUIREMENTS:

A. Section 01310 - PROGRESS SCHEDULES.

B. Section 01340 - SHOP DRAWINGS AND PRODUCT DATA.

C. Section 01370 - SCHEDULE OF VALUES.

D. Each Specification Section referenced herein.

1.4 CONTINGENCY ALLOWANCES

A. Include in Contract Sum the Lump Sum Contingency Allowance stated in paragraph 1.1.

B. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

C. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

D. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

E. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.5 ADJUSTMENT OF COSTS:

A. Should net cost be more or less than specified amount of Allowance, Contract Sum will be adjusted accordingly by Change Order.

1. Amount of Change Order will recognize any changes in handling costs at the site, labor installation costs, and other expenses caused by selection under Allowance.

2. For products specified under a Unit Cost Allowance, unit cost shall apply to quantity required for project and as approved by Architect in Schedule of Values.

B. Submit any claims for anticipated additional costs at site, or other expenses caused by selection under Allowance, prior to execution of Work.

C. Failure to submit claims within designated time will constitute a waiver of claims for additional costs.

D. At Contract closeout, reflect all approved changes in contract amounts in final statement of accounting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 INSTALLATION:

A. All items specified in this section shall be installed in accord with manufacturer's detailed recommendations or as directed by Architect.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. Administrative and procedural requirements for handling and processing contract modifications.

1.2 RELATED REQUIREMENTS:

A. Section 01020 - ALLOWANCES: Procedural requirements governing the handling and processing of allowances.

B. Section 01630 - PRODUCT OPTIONS AND SUBSTITUTIONS: Administrative procedures for handling requests for substitutions made after award of the Contract.

1.3 MINOR CHANGES IN THE WORK:

A. The Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on AIA Form G710, Architect's Supplemental Instructions or other suitable written form.

1.4 CHANGE ORDER PROPOSAL REQUESTS:

A. Owner-Initiated Proposal Requests: The Architect will issue a detailed description of proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by the Architect are for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.
2. Submit an estimate of cost necessary to execute the change to the Architect for the Owner's review within time stated on Proposal Request.
    a. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
    b. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
    c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

B. Contractor-Initiated Proposals: When latent or unforseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.

1. Include a statement outlining the 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 Contract Time.
2. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
3. Indicate delivery charges, equipment rental, and amounts of trade discounts.
4. Comply with requirements in Section "Product Substitutions" if the proposed change requires substitution of one product or system for a product or system specified.

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

1.5 CONSTRUCTION CHANGE DIRECTIVE:

A. Construction Change Directive: When the Owner and the Contractor disagree on the terms of

a Proposal Request, the Architect may issue a Construction Change Directive on AIA Form G714. The Construction Change Directive instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. The Construction Change Directive contains a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or 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 the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.6 CHANGE ORDER PROCEDURES

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

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. In new construction, or remodeling work, cut, fit, and patch to complete Work, or to:
   1. Make its several parts fit together properly.
   2. Uncover portions of the work to provide for installation of ill-timed work.
   3. Remove and replace defective work.
   4. Remove and replace work not conforming to requirements of Contract Documents.
   5. Remove samples of installed work as specified for testing.
   6. Provide routine penetrations of non-structural surfaces for installation of piping, electrical conduit, ducts and other penetrations.
   7. Make new work fit existing conditions where applicable.

1.2 RELATED REQUIREMENTS:

A. Section 01010 - SUMMARY OF WORK.
B. Division 15 and 16
   1. Requirements of this Section apply to mechanical and electrical installations. Refer to Division 15 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.3 SUBMITTALS - Submit in accord with Section 01340:

A. Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Owner requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
   1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
   2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
   3. List products to be used and firms or entities that will perform Work.
   4. Indicate dates when cutting and patching will be performed.
   5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
   6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
   7. Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of unsatisfactory work.

1.4 QUALITY ASSURANCE

A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
   1. Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
      a. Foundation construction.

b. Bearing and retaining walls.
c. Structural concrete.
d. Structural steel.
e. Lintels.
f. Miscellaneous structural metals.
g. Equipment supports.
h. Piping, ductwork, vessels, and equipment.

B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
1. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
a. Primary operational systems and equipment.
b. Air or smoke barriers.
c. Water, moisture, or vapor barriers.
d. Membranes and flashings.
e. Fire protection systems.
f. Control systems.
g. Communication systems.
h. Electrical wiring systems.

C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
1. Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide

protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.

C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Avoid cutting existing pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.3 PERFORMANCE

A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.

B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.

1. In general, where cutting, use hand or small power tools designed for sawing or 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. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
3. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
4. Comply with requirements of applicable Division 2 Sections where cutting and patching requires excavating and backfilling.
5. Where services are required to be removed, relocated, tied into, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
6. Patch or repair all paving and walkways demolished as a result of underground utility work.

C. Patching: Patch with durable seams that are as invisible as possible.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
2. 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.
3. Where removing walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.

3.4 CLEANING

A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original

condition.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
   1. Coordination Drawings.
   2. Administrative and supervisory personnel.
   3. Project meetings.
   4. Requests for Interpretation (RFIs).

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.

1.2 RELATED REQUIREMENTS:

A. Division 1 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.

B. Division 1 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

C. Division 1 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS:

A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents

1.4 COORDINATION:

A. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
   1. Preparation of Contractor's Construction Schedule.
   2. Preparation of the Schedule of Values.
   3. Installation and removal of temporary facilities and controls.
   4. Delivery and processing of submittals.
   5. Progress meetings.
   6. Preinstallation conferences.
   7. Project closeout activities.
   8. Startup and adjustment of systems.
   9. Project closeout activities.

1.5 SUBMITTALS:

A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
   1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 ADMINISTRATIVE AND SUPERVISORY PERSONNEL:

A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.

B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contrac tor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:
    a. Tentative construction schedule.
    b. Critical work sequencing and long-lead items.
    c. Designation of key personnel and their duties.
    d. Procedures for processing field decisions and Change Orders.
    e. Procedures for RFIs.
    f. Procedures for testing and inspecting.
    g. Procedures for processing Applications for Payment.
    h. Distribution of the Contract Documents.
    i. Submittal procedures.
    j. Preparation of Record Documents.
    k. Use of the premises and existing building.
    l. Work restrictions.
    m. Owner's occupancy requirements.
    n. Responsibility for temporary facilities and controls.
    o. Parking availability.
    p. Office, work, and storage areas.
    q. Equipment deliveries and priorities.
    r. First aid.
    s. Security.
    t. Progress cleaning.
    u. Working hours.

C. Progress Meetings: Conduct progress meetings at intervals agreeable to Owner. Coordinate dates of meetings with preparation of payment requests.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction 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.
        1) Review schedule for next period.
    b. Review present and future needs of each entity present, including the following:
        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Temporary facilities and controls.
        5) Hazards and risks.
        6) Progress cleaning.
        7) Quality and work standards.
        8) Status of correction of deficient items.
        9) Field observations.
        10) RFIs.
        11) Status of proposal requests.
        12) Pending changes.
        13) Status of Change Orders.
        14) Documentation of information for payment requests.
3. Minutes: Contractor will record and distribute the meeting minutes.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
    a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.8 REQUESTS FOR INTERPRETATION (RFIs)

A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
    1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
    2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
   1. Project name.
   2. Date.
   3. Name of Contractor.
   4. Name of Architect.
   5. RFI number, numbered sequentially.
   6. Specification Section number and title and related paragraphs, as appropriate.
   7. Drawing number and detail references, as appropriate.
   8. Field dimensions and conditions, as appropriate.
   9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
   10. Contractor's signature.
   11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
      a. Supplementary draw ings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

C. Hard-Copy RFIs: Identify each page of attachments with the RFI number and sequential page number.

D. Software-Generated RFIs: Software-generated form with substantially the same content as indicated above.
   1. Attachments shall be electronic files in Adobe Acrobat PDF format.

E. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow seven working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day. RFIs requiring evaluation by Architect's consultants may take more time. In any case, notify Architect if RFI is time sensitive.
   1. The following RFIs will be returned without action:
      a. Requests for approval of submittals.
      b. Requests for approval of substitutions.
      c. Requests for coordination information already indicated in the Contract Documents.
      d. Requests for adjustments in the Contract Time or the Contract Sum.
      e. Requests for interpretation of Architect's actions on submittals.
      f. Incomplete RFIs or RFIs with numerous errors.
   2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
   3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
      a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.

F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect with in seven days if Contractor disagrees with response.

G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log at Progress Meetings. Include the following:
   1. Project name.
   2. Name and address of Contractor.
   3. Name and address of Architect.
   4. RFI number including RFIs that were dropped and not submitted.
   5. RFI description.
   6. Date the RFI was submitted.
   7. Date Architect's response was received.
   8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
   9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDES:

A. Requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.2 RELATED REQUIREMENTS:

A. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS: Definitions and basic responsibilities of parties.
B. Section 01310 - PROGRESS SCHEDULES.
C. Section 01600 - PRODUCTS (TRANSPORTATION AND STORAGE).
D. Section 01630 - PRODUCT OPTIONS AND SUBSTITUTIONS
E. Section 01720 - PROJECT RECORD DOCUMENTS.
F. Section 01730 - OPERATING AND MAINTENANCE DATA.
G. Designate in construction schedule, or in a separate coordinated schedule, dates for submission and dates that reviewed Shop Drawings, Product Data, and Samples will be needed.
H. Sections requiring submittals.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
B. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 SHOP DRAWINGS:

A. Format
    1. Submit all submittals digitally using .PDF file extension. Each submittal shall be a single .PDF file including transmittal letter. Multiple files for the same submittal will not be accepted.
    2. Submittals in any other format, including .ZIP files, will be rejected.
    3. Hard copies will not be accepted.
    4. To ensure each page is legible, .PDF pages of drawings shall be the same size/scale as a hard copy. Where applicable, scale symbols should be provided to indicate scale. Illegible submittals will be rejected.
    5. Submittals will be uploaded to Architect's Info Exchange website.
B. Present drawings in a clear and thorough manner.
    1. Identify details by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.
C. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

D. Printable Image Size: Minimum 8 ½ x 11 inches and maximum 24 x 36 inches.
E. Draw details to a minimum scale of 1/2 inches equal to 1 foot.
F. Draw site plans to same scale indicated on contract drawings.
G. Draw all other plans to a minimum scale of 1/8 inch equal to 1 foot.
H. Construction Documents (electronic or paper format) issued by the Architect cannot be used in any shape, form or fashion in the creation and development of shop drawings, except that electronic files containing floor plans or site plans which have been purchased from the Architect may be used as "backgrounds" for Contractor, subcontractors, sub-subcontractors and material suppliers in the Shop Drawing process.
I. Electronic Files
   1. Electronic drawing files are available for purchase from the Architect and Engineer upon request. Cost of the files are indicated below plus applicable taxes.
      0 – 3 sheets $100.00 per sheet
      4 – 6 sheets $400.00 flat fee
      7 – 9 sheets $500.00 flat fee
   2. Only the Contractor or his subcontractors and sub-subcontractors may purchase an electronic file. An electronic file will be provided in AUTOCAD format of the release currently used by the Architect. File will be provided via Architect's Info Exchange website.
J. Prior to delivery of the file, purchaser shall sign an Electronic File Transfer Release Form. Payment for an electronic file shall occur upon delivery of file to purchaser.
   1. Electronic file shall be used only for the production of information required by this project and shall not be used in any other form (in whole or part).
K. In the creation and publication of Shop Drawings, under no circumstances shall the Design Professional's seal or title block of the drawing be reproduced. All shop drawings must be original works from the Contractor subcontractors, sub-subcontractors and material suppliers.

1.5 ACTION SUBMITTALS
A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architectand additional time for handling and reviewing submittals required by those corrections.

1.6 SUBMITTAL ADMINISTRATIVE REQUIREMENTS
A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
   3. Submit action submittals and submittals required by the same Specification Section as separate packages under separate transmittals.
   4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of complete submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required and transmittal of submittals to Architect's consultants. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow 15 days for review of each resubmittal.

C. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Include the following information for processing and recording action taken:
   a. Project name.
   b. Date.
   c. Name of Architect.
   d. Name of Contractor.
   e. Name of subcontractor.
   f. Name of supplier.
   g. Name of manufacturer.
   h. Submittal number or other unique identifier, including revision identifier.
      1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
   i. Number and title of appropriate Specification Section.
   j. Drawing number and detail references, as appropriate.
   k. Other necessary identification.

D. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

1. Name file with submittal number or other unique identifier, including revision identifier.
   a. File name shall use identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., Carpentry-06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., Carpentry-06100.01.A).
2. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
3. Include the following information on an inserted cover sheet:
   a. Project name.
   b. Date.
   c. Name and address of Architect.
   d. Name of Contractor.
   e. Name of firm or entity that prepared submittal.
   f. Name of subcontractor.

g. Name of supplier.
h. Name of manufacturer.
i. Number and title of appropriate Specification Section.
j. Drawing number and detail references, as appropriate.
k. Location(s) where product is to be installed, as appropriate.
l. Related physical samples submitted directly.
m. Other necessary identification.

4. Include the following information as keywords in the electronic file metadata:
   a. Project name.
   b. Number and title of appropriate Specification Section.
   c. Manufacturer name.
   d. Product name.

E. Options: Identify options requiring selection by the Architect.

F. Deviations: Identify deviations from the Contract Documents on submittals.

G. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

H. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Contractor.

1. Transmittal Form: Provide locations on form for the following information:
   a.. Project name.
   b. Date.
   c. Destination (To:).
   d. Source (From:).
   e. Names of subcontractor, manufacturer, and supplier.
   f. Category and type of submittal.
   g. Submittal purpose and description.
   h. Specification Section number and title.
   i. Drawing number and detail references, as appropriate.
   j. Remarks.
2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect'saction stamp.

J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

K. Use for Construction: Use only final submittals that are marked with approval notation from Architect'saction stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
   1. Post electronic submittals as PDF electronic files directly to Architect's FTP site specifically established for Project.
      a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
   2. Action Submittals: Submit three paper copies of each submittal, unless otherwise indicated. Architectwill return a PDF electronic file.
   3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 1 Section "Closeout Procedures."
   4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
      a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
      b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
   5. Test and Inspection Reports Submittals: Comply with requirements specified in Division 1 Section "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
   1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
   2. Mark each copy of each submittal to show which products and options are applicable.
   3. Include the following information, as applicable:
      a. Manufacturer's catalog cuts.
      b. Manufacturer's product specifications.
      c. Standard color charts.
      d. Statement of compliance with specified referenced standards.
      e. Notation of coordination requirements.
      f. Availability and delivery time information.
   4. For equipment, include the following in addition to the above, as applicable:
      a. Wiring diagrams showing factory-installed wiring.
      b. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
   5. Submit Product Data before or concurrent with Samples.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based upon Architect's digital data drawing files is otherwise permitted.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
   a. Identification of products.
   b. Schedules.
   c. Compliance with specified standards.
   d. Notation of coordination requirements.
   e. Notation of dimensions established by field measurement.
   f. Relationship and attachment to adjoining construction clearly indicated.
2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
3. Submit Shop Drawings in the following format:
   a. PDF electronic file.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 1 Section "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
   1. Where submittals are marked "Approved," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
   2. When submittals are marked "Approved as Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
   3. When submittal is marked "Not Approved, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
      a. Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the project site, or elsewhere where Work is in progress.

4. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".

C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

D. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDE:

A. Submit to Architect a Schedule of Values allocated to various portions of Work, and Monthly Payment Estimates within 10 days after award of contract.

B. Upon request of Architect, support values with data which will substantiate their correctness.

C. The Schedule of Values, unless objected to by Architect, shall be used only as basis for Contractor's Applications for Payment.

1.2 RELATED REQUIREMENTS:

A. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS.

1.3 FORM AND CONTENT OF SCHEDULE OF VALUES:

A. Schedule form and Quantity: Submit three copies of current AIA Form G-702.

B. Follow Table of Contents of Project Manual as format for listing component items.

1. Identify each line item with number and title of respective major section of the Specification.
2. Do not combine sections, but a more detailed breakdown of an individual section is allowable.

C. For each major line item or section, list sub-values of major products or operations.

D. Break down line items larger than $100,000 into sub-categories; (example: labor and materials, by floors, phases or other approved method) to better evaluate completed work.

E. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.

F. Schedule Updating: Update Schedule of Values prior to the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 MONTHLY PAYMENT ESTIMATE:

A. To facilitate Owner's financial requirements, submit estimated project payment draws for each month during entire project. Coordinate payment estimates with Progress Schedule described in Section 01310.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. "Installer": Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.

J. "Experienced": When used with an entity, "experienced" means having successfully completed a minimum of 5 previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

K. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

C. Conflicting Requirements: If compliance with two or more standards is specified and the

standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

D. Copies of Standards: Each entity engaged in construction on Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.

E. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

1.3 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AIA	American Institute of Architects (The) www.e-architect.com	(202) 626-7300
ALSC	American Lumber Standard Committee	(301) 972-1700
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
ASTM	American Society for Testing and Materials www.astm.org	(610) 832-9585
UL	Underwriters Laboratories Inc. www.ul.com	(800) 704-4050 (847) 272-8800

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ICBO	International Conference of Building Officials www.icbo.org	(800) 284-4406 (562) 699-0541
ICC	International Code Council (Formerly: CABO - Council of American Building Officials) www.intlcode.org	(703) 931-4533

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

EPA	Environmental Protection Agency www.epa.gov	(202) 260-2090
OSHA	Occupational Safety & Health Administration www.osha.gov	(202) 693-1999

D. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Quality Assurance
- B. Utilities
- C. Environmental Control
- D. Security and Protection Facilities Installation
- E. Fire Hazard Safety
- F. Enclosures
- G. Protection of Installed Work
- H. Cleaning During Construction
- I. Temporary Drinking Water
- J. Temporary Sanitary Facilities

1.2 RELATED REQUIREMENTS:
- A. Document 00700 - GENERAL CONDITIONS
- B. Section 01010 - SUMMARY OF WORK
- C. Section 01701 - CONTRACT CLOSEOUT PROCEDURES
- D. Section 01710 - CLEANING.

1.3 QUALITY ASSURANCE
- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
  1. Building code requirements.
  2. Health and safety regulations.
  3. Utility company regulations.
  4. Police, fire department, and rescue squad rules.
  5. Environmental protection regulations.
- B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
  1. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

1.4 UTILITIES:
- A. Owner will provide through existing permanent meters, water and electricity as required for construction. If Contractor becomes wasteful of utilities, he may be required to pay Owner for them. Make required temporary connections, lines and extensions, taking precautions not to overload existing facilities. At termination of use, remove temporary devices and connections.
- B. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. 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 disconnecting means, automatic ground-fault interrupters, and main distribution switchgear.

1. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circ uit interrupters, reset button, and pilot light.

1.5 ENVIRONMENTAL CONTROL:

A. 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.

1.6 PROTECTION OF FACILITIES

A. Storage on Roof: Do not concentrate or stage roofing materials on roof. Spread stockpiled materials evenly over roof to not not overload existing roof structure or deck.

1.7 FIRE HAZARD SAFETY

A. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations." Comply with Comply with 2000 IFC, Chapter 14 "Fire Safety During Construction, Alteration or Demolition of a Building" as adopted by City of Abilene.

1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
2. Store combustible materials in containers in fire-safe locations.
3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.
4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

1.8 LIFE SAFETY REQUIREMENTS DURING CONSTRUCTION

A. Maintain free and unobstructed access to construction areas by emergency departments and equipment.

B. Smoking is strictly forbidden on AISD campuses, indoors or outdoors.

C. Provide storage, housekeeping, and debris-removal practices that reduce the flammable and combustible fire load of the construction area to the lowest level necessary for construction work.

D. Train personnel for proper use of portable fire extinguishing equipment and area evacuation procedures. provide adequate number of extinguishers as stipulated in Uniform Fire Code.

1.9 PROTECTION OF INSTALLED WORK:

A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
B. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings. Protect finished floors from traffic, movement of heavy objects, and storage.
C. Prohibit traffic and storage on waterproofed and roofed surfaces, on lawn and landscaped areas.
D. Do not overload roof structure by concentrating new equipment or existing equipment during removal while staging unit replacement.
E. Carefully stage materials, equipment, tools and other items to not damage roofing and flashing. Repair damage caused by operations during installation.

1.10 CLEANING DURING CONSTRUCTION:
A. Control accumulation of waste materials and rubbish; periodically dispose of off-site.
B. Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

1.11 TEMPORARY DRINKING WATER:
A. Each Contractor and Subcontractor shall furnish drinking water for their own workers if construction water is unacceptable.

1.12 TEMPORARY SANITARY FACILITIES:
A. Provide sanitary facilities in compliance with laws and regulations (separate from existing).
B. Service, clean and maintain facilities and enclosures.
C. Existing facilities shall not be used during the construction period by construction personnel.

PART 2 - PRODUCTS

2.1 Materials shall be as specified and/or to meet contract requirements.

PART 3 - EXECUTION

3.1 OPERATION, TERMINATION, AND REMOVAL
A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.
C. Temporary Facility Changeover: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been 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 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 the property of Contractor.

2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1 Section "Closeout Procedures."

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Products
- B. Transportation and Handling
- C. Storage and Protection

1.2 RELATED REQUIREMENTS:
- A. Section 01010 - SUMMARY OF WORK
- B. Section 01020 - ALLOWANCES
- C. Section 01340 - SHOP DRAWINGS AND PRODUCT DATA
- D. Section 01701 - CONTRACT CLOSEOUT PROCEDURES

1.3 PRODUCTS:
- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable.
- D. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents.

1.4 TRANSPORTATION AND HANDLING:
- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.5 STORAGE AND PROTECTION:
- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Contractor's options in selection of products.
- B. Requests for substitutions prior to bid and after execution of Contract.

1.2 RELATED DOCUMENTS:
- A. Document 00100 - INSTRUCTIONS TO BIDDERS
- B. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS

1.3 OPTIONS:
- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not specifically named.

1.4 SUBSTITUTIONS:
- A. Reference in Project Manual to products or type of construction by proprietary designation shall be interpreted as establishing a standard of quality and is not intended to limit competition, except where products are intended to meet a specific application. However, only Architect has authority to determine whether material is equal to products named in Project Manual.
- B. Substitution requests prior to bid:
  1. Submit requests for product substitutions so that they are received by Architect 10 days prior to bid opening date for evaluation. Include with requests complete descriptive literature and identification of items for which a substitution is being requested. Bidders will be notified of approved substitution products by Addendum.
- C. Substitution requests after execution of Contract will be considered under the following conditions:
  1. The request is accompanied by:
     - a. Complete data on proposed substitution substantiating compliance with Contract Documents including product identification and description.
     - b. Performance and test data, references and if requested, samples.
     - c. Itemized comparison of proposed substitution with products specified or named by Addenda, with data relating to Contract time schedule, design and artistic effect where applicable.
  2. If requested by Architect, supply accurate cost data on proposed substitution in comparison with product specified, whether or not modification of the Contract Sum is to be a consideration.
- D. Requests for substitutions, when forwarded by Contractor to Architect, are understood to mean that the Contractor:
  1. Represents that he has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.
  2. Will provide the same guarantee for the substitution that he would for that specified.
  3. Certifies that the cost data presented is complete and includes all related costs under this Contract, and that he agrees to pay for additional costs related to the substitution which subsequently become apparent.

4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

E. If product or system proposed by Contractor as a substitution requires redesign of adjacent or related finishes, structure, mechanical or electrical system, or other component of project, Contractor will be responsible to pay Architect for subsequent redesign costs.

F. Products which, in the opinion of the Architect, are not equal to those specified will be considered on a basis of cost difference only, in which case effected savings shall accrue to Owner. Approval of "Cost Difference" substitutions shall be valid upon issuance of an executed Change Order.

G. Substitutions will not be considered if:
   1. They are indicated or implied on shop drawing submissions without a formal substitution request.
   2. For their implementation they require a revision of the Contract Documents in order to accommodate their use, unless approved by Architect.

H. Should a substitution be approved, and subsequently prove to be defective or otherwise unsatisfactory for service for which it was intended, Contractor shall, without cost to Owner and without obligation on the part of Architect, replace product with material originally specified.

I. Architect will determine acceptability of proposed substitution, and will notify Contractor of acceptance or rejection as soon as possible.

J. Only one request for substitution will be considered for each product. When substitution is not accepted, provide specified product.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

1. General installation of products.
2. Progress cleaning.
3. Starting and adjusting.
4. Protection of installed construction.
5. Correction of the Work.

1.2 RELATED REQUIREMENTS:

A. Division 1 Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.

1. Division 1 Section "Submittal Procedures" for submitting surveys.
2. Division 1 Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
3. Division 1 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

1. Before construction, verify the location and points of connection of utility services.

B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
   1. Make vertical work plumb and make horizontal work level.
   2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
   3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
   4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
   1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
   2. Allow for building movement, including thermal expansion and contraction.
   3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

H. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
   1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
   2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
   3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
   1. Remove liquid spills promptly.
   2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.6 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
   1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Administrative provisions for Substantial Completion and for final acceptance.
- B. Closeout submittals.
- C. Adjustment of accounts.

1.2 RELATED REQUIREMENTS:
- A. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS.
- B. Section 01010 - SUMMARY OF WORK.
- C. Section 01020 - ALLOWANCES.
- D. Section 01710 - CLEANING.
- E. Section 01720 - PROJECT RECORD DOCUMENTS.

1.3 SUBSTANTIAL COMPLETION:
- A. Notify Architect requesting a final inspection when Work or designated portion of Work is considered substantially complete and ready for final review. Architect will make final inspection and prepare a Final Check List containing deficiencies.
- B. Architect will notify Contractor if Work is found not to be substantially complete or ready for final inspection. Contractor shall remedy deficiencies and re-request a final inspection.
- C. Upon correction of deficiencies on Final Inspection List, Contractor shall review Work and verify that all items are complete. Submit to Architect, one copy of Final Inspection List, signed by Contractor to certify completion of items.
- D. Architect will notify Contractor should re-inspection find work incomplete.
- E. Architect will prepare a Certificate of Substantial Completion in accord with provisions of General Conditions when Work is determined by Architect to be substantially complete.

1.4 FINAL COMPLETION:
- A. When Contractor considers project complete in accord with Construction Documents, notify Architect that Work is complete and ready for final review and acceptance by Owner.
- B. Submit Closeout submittals to Architect.
- C. Architect will review closeout submittals when Work is determined to be complete.

1.5 FORM OF CLOSEOUT SUBMITTALS:
- A. Provide documents in electronic PDF format on CD or flash drive organized in appropriate folders.
- B. Label cover of each disc or drive with title of contents, and title of Project.

1.6 CLOSEOUT SUBMITTALS - Submit the following:
- A. Operation and Maintenance Manuals: Three one electronic copy of each manual, prepared and organized as described in Section 01730.
- B. Project Information - Containing cover letter with Contractor's name, address and telephone number, table of contents, and contents tabbed to include the following:
  1. Inspection certificates if required by Construction Documents and applicable Codes.
  2. Contractor's Affidavit of Payment of Debts and Claims - AIA Doc. G706.
  3. Contractor's Affidavit of Release of Liens - AIA Doc. G706A.

4. Consent of Surety to Final Payment - AIA Doc. G707
5. Warranties - Prepared and organized with:
    a. Table of Contents: Neatly typed, in sequence of Table of Contents of the Project Manual, with each item identified by number and title of specification section in which specified, and name of product or work item. Provide full information; list subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible individual.

C. Project Record Documents: Coordinate with provisions of Section 01720.

D. Asbestos Letter: Provide letter which states, to the best of Contractor's knowledge, materials or equipment containing asbestos or PCB's were not incorporated into new Work.

1.7 STATEMENT OF ADJUSTMENT OF ACCOUNTS:

A. Submit Final Application for Payment reflecting adjustments to Contract Sum indicating:
1. Original Contract Sum.
2. Previous change orders.
3. Changes under allowances.
4. Deductions for uncorrected work.
5. Deductions for liquidated damages.
6. Other approved adjustments to Contract Sum.
7. Total Contract Sum as adjusted.
8. Previous payments.
9. Sum remaining due.

B. Architect will issue a final Change Order reflecting approved adjustments to Contract Sum not previously made by change orders.

**** END OF SECTION ****

CONTRACT CLOSEOUT CHECKLIST

CONTRACTOR: Do not submit closeout documents until all items are obtained. Submit all items and checklist to Architect for transmittal to Owner.

1. Operation and Maintenance Manuals (2 copies each). _____

2. Project Information (2 copies) including:
   a. Contractor's Affidavit of Payment of Debts and Claims - AIA G706 _____
   b. Contractor's Affidavit of Release of Liens - AIA G706A _____
   c. Consent of Surety to Final Payment - AIA G707 _____
   d. Warranties:
      (1) Roof Warranties _____

3. Asbestos letter. _____

4. Project Record Documents (plans and specifications) _____

Date Received from Contractor _____

Date Transmitted to Owner _____

Owner's Acceptance _____

_____
Title

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Execute cleaning during progress of the work, and at completion of the work.

1.2 RELATED REQUIREMENTS:
- A. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS.
- B. Section 01700 - EXECUTION REQUIREMENTS: Cleaning during construction.
- C. Section 01701 - CONTRACT CLOSEOUT PROCEDURES.
- D. Individual Specifications Sections: Specific cleaning for product or work.

1.3 DESCRIPTION:
- A. Execute exterior cleaning prior to inspection for Substantial Completion and Final Completion of each designated portion of the work.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS:
- A. Use materials which will not create hazards to health or property, and which will not damage surfaces.
- B. Use only materials and methods recommended by manufacturer of material being cleaned.

PART 3 - EXECUTION

3.1 CLEANING:
- A. Clean and repair all areas and surfaces damaged or soiled during remodeling/renovation work. Bring areas to same conditions as prior to construction activities.
- B. Prior to Final Inspection, remove all surplus materials, false-work, temporary structures (including foundations, plant facilities of every description and all debris resulting from c onstruction operations) and put entire premises in a neat, orderly condition.
- C. In addition to removal of debris and cleaning specified in other sections, clean exterior exposed-to-view surfaces.
- D. Remove temporary protection and labels not required to remain.
- E. Clean finishes free of dust, stains, films and other foreign substances.
- F. Clean surfaces of equipment; remove excess lubrication.
- G. Remove waste, foreign matter, and debris from roofs, gutters, area ways, and drainage systems.
- H. Remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Cut down and remove weeds and tall grass around buildings prior to final inspection. Rake clean grounds around building.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:
- A. Maintenance and submittal of Record Documents and Samples.

1.2 RELATED REQUIREMENTS:
- A. Document 00700 - GENERAL AND SUPPLEMENTAL CONDITIONS: Documents kept at the site.
- B. Section 01340 - SHOP DRAWINGS AND PRODUCT DATA.
- C. Section 01701 - CONTRACT CLOSEOUT PROCEDURES.
- D. Individual Specification Sections: Manufacturer's certificates and certificates of inspection.

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES :
- A. In addition to requirements in General Conditions, maintain at site for Owner one record copy of:
  1. Contract Drawings.
  2. Specifications.
  3. Addenda.
  4. Change Orders and other modifications to the Contract.
  5. Reviewed shop drawings, product data, and samples.
  6. Inspection certificates.
  7. Manufacturer's certificates.
- B. Label and file Record Documents and samples in accordance with Section number listings in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- C. Maintain Record Documents in a clean, dry and legible condition. Do not use Record Documents for construction purposes.
- D. Keep Record Documents and samples up-to-date and available for inspection by Architect throughout construction.

1.4 RECORDING:
- A. Record information on a set of blue line opaque drawings, and in a copy of a Project Manual (Specifications).
- B. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information.
- C. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- D. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:
  1. Measured depths of elements of foundation in relation to finish first floor datum.
  2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
  4. Field changes of dimension and detail.
  5. Changes made by Modifications.
  6. Details not on original Contract Drawings.

7. References to related shop drawings and Modifications.

E. Project Manual: Legibly mark each item to record actual construction, including:
   1. Manufacturer, trade name, and catalog number of each product actually installed, particularly optional items and substitute items.
   2. Changes made by Addenda and Modifications.

F. Other Documents: Maintain manufacturer's certifications, inspection certifications, field test records, required by individual Specifications Sections.

G. Coordinate with Section 01730 - OPERATING AND MAINTENANCE DATA.

1.5 SUBMITTALS:

A. At Contract closeout, deliver Record Documents and samples in accordance with Section 01701 - CONTRACT CLOSEOUT PROCEDURES.

B. Transmit with cover letter in duplicate, listing:
   1. Date.
   2. Project title and number.
   3. Contractor's name, address, and telephone number.
   4. Number and title of each Record Document.
   5. Signature of Contractor or authorized representative.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

**** END OF SECTION ****

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. This Section includes the following:

1. Demolition and removal of selected portions of building components.

1.2 RELATED REQUIREMENTS:

A. Section 01010 - SUMMARY OF WORK: Use of premises, and phasing, and Owner-occupancy requirements

B. Section 01500 - TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS: Temporary construction and environmental-protection measures for selective demolition operations.

C. Section 01045 - CUTTING AND PATCHING: Cutting and patching procedures.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1. Comply with requirements specified in Division 1 Section "Summary."

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Storage or sale of removed items or materials on-site is not permitted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

B. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

1. Comply with requirements specified in Division 1 Section "Photographic Documentation."

2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

C. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 PREPARATION

A. 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 Division 1 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
   1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
   2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.

3.3 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and 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.
   2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
   3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   4. 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 flame-cutting operations.
   5. Maintain adequate ventilation when using cutting torches.
   6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
   7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
   8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
   9. Dispose of demolished items and materials promptly.

B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.4 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Roofing: Remove no more existing roofing than can be covered in one day by new roofing and so that building interior remains watertight and weathertight. Refer to Division 7 for new roofing requirements.
   1. Remove existing roof ballast, and flashings, copings, and roof accessories if required to properly execute work.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
   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.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

D. Solid Waste Disposal Act: Prior to the expenditure of federal funds to store, process, or dispose of hazardous materials, comply with the Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361, and Title 30 of the Texas Administrative Code, Chapter 335, "Industrial Solid Waste and Municipal Hazardous Waste" administered by the Texas Commission on Environmental Quality. Sanitary or hazardous waste is defined in 40 CFR Part 260 and Title 30 of the Texas Administrative Code, Chapter 335, to include, but not limited to, old light bulbs, lead ballasts, piping, roofing material, discarded equipment, debris, and asbestos. Provide required permits and retain all compliance documentation related to the project.

3.6 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.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 SECTION INCLUDES
- A. Rough carpentry work not specified elsewhere and generally intended for support of other work.
- B. Miscellaneous blocking, grounds, nailers, and panels.

1.2 REFERENCES
- A. AWI - American Woodwork Institute: Quality Standards
- B. ASTM A307 - Carbon Steel Bolts and Studs, 60000 psi Tensile Strength
- B. ASTM A563 - Carbon Alloy Steel Nuts

1.3 SUBMITTALS
- A. Wood treatment data from chemical treatment manufacturer. Include chemical treatment manufacturer's instructions for handling, storing, installing, and finishing treated material.
  1. Preservative Treatment: Include certification by treatment plant stating type of solution and pressure process used, net amount of preservative retained, and compliance with applicable standards.

1.4 DELIVERY, STORAGE, AND HANDLING
- A. Delivery and Storage: Keep materials under cover and dry. Protect against exposure to weather and contact with damp or wet surfaces. Stack material above ground level on uniformly spaced supports to prevent deformation.
  1. For material pressure treated with waterborne chemicals, place spacers between each bundle for air circulation.

PART 2 - PRODUCTS

2.1 LUMBER, GENERAL
- A. Standards: Furnish lumber manufactured to comply with PS 20 "American Softwood Lumber Standard" and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Board of Review.
- B. Grade Stamps: Furnish lumber with each piece factory-marked with grade stamp of inspection agency that indicates grading agency, grade, species, moisture content at time of surfacing, and mill.
  1. For exposed lumber, furnish pieces marked on ends or back of each piece.
- C. Sizes: Provide nominal sizes indicated, complying with PS 20 except where actual sizes are specifically noted as being required.
- D. Surfacing: Dressed lumber, S4S, unless otherwise indicated.

2.2 DIMENSION LUMBER FOR CONCEALED CONDITIONS
- A. Species: Any wood species listed by PS 20.
- B. Moisture Content: S-DRY, KD 19 or MC 19 (19 percent maximum moisture content).
- C. Grade: No. 2 or standard grade.

2.3 FASTENERS

A. General: Where miscellaneous carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with a hot-dip zinc coating per ASTM A 153 or of AISI Type 304 stainless steel.
B. Nails, Wire, Brads and Staples: FS FF-N-105.
C. Bolts: ASTM A 307, Grade A; with ASTM A 563 hex nuts and flat washers.
D. Use stainless steel fasteners when securing roofing products or membranes to treated wood at roof or parapet conditions.

2.4 PRESERVATIVE WOOD TREATMENT BY PRESSURE PROCESS

A. General: Obtain preservative-treated lumber complying with AWPA Standard C2. Mark each treated item with AWPB or SPIB Quality Mark Requirements. Coat surfaces cut after treatment to comply with AWPA M4.
B. Above-Ground Wood Treatment: Pressure treat with waterborne preservatives to a minimum retention of 0.25 pcf.
    1. Kiln-dry interior dimension lumber after treatment to 19 percent maximum moisture content.
    2. Treat wood items indicated and in the following circumstances:
        a. In contact with roofing, flashing, or waterproofing.
        b. In contact with masonry or concrete.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Discard units of material with defects that impair quality of miscellaneous carpentry and in sizes that would require an excessive number or poor arrangement of joints.
B. Cut and fit miscellaneous carpentry accurately. Install members plumb and true to line and level.
C. Coat cut edges of preservative-treated wood to comply with AWPA M4.
D. Securely fasten miscellaneous carpentry as indicated and according to applicable codes and recognized standards.
E. Countersink nail heads on exposed carpentry work and fill holes.
F. Use fasteners of appropriate type and length. Predrill members when necessary to avoid splitting wood.

3.2 WOOD GROUNDS, NAILERS, BLOCKING, AND SLEEPERS

A. Install where shown and where required for attachment of other work. Cut and shape to required size. Coordinate location with other work involved.
B. Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:
- A. Ballast removal.
- B. Removal of base flashings.
- C. Protection of existing roofing system that is not reroofed.

1.2 RELATED REQUIREMENTS
- A. Section 07527 - SBS - MODIFIED BITUMEN SHEET ROOFING
- B. Section 07600 - FLASHING AND SHEET METAL

1.3 MATERIALS OWNERSHIP
- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally disposed.

1.4 DEFINITIONS
- A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Existing Membrane Roofing System: Built-up asphalt roofing membrane, gravel surfacing, and components and accessories.
- C. Ballast Removal: Removal of existing loose gravel and scraped to remove embedded gravel from roof surface.
- D. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.
- E. Existing to Remain: Existing items of construction that are not indicated to be removed.

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

1.6 QUALITY ASSURANCE
- A. Photographs or Videotape: Contractor may produce for his own use, photographs or videotape showing existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Reroofing Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to roofing system including, but not limited to, the following:
  1. Review methods and procedures related to reroofing preparation, including membrane roofing system manufacturer's written instructions.
  2. Review temporary protection requirements for existing roofing system that is to remain, during and after installation.

3. Review structural loading limitations of deck during reroofing.
4. Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect reroofing.
5. Review existing conditions that may require notification of Architect before proceeding.

1.7 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
   1. Coordinate work activities daily with Owner so Owner can place protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area if desired.

B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

D. Owner assumes no responsibility for condition of areas to be reroofed.
   1. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.

E. Limit construction loads on roof to prevent damage to existing decking.

F. Construction Drawings, if available, for existing roofing system will be provided for Contractor's reference. Contractor is responsible for conclusions derived from existing documents.

G. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.

H. Hazardous Materials: It is not expected that hazardous materials such as asbestos-containing materials will be encountered in the Work.
   1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect. Hazardous materials will be removed by Owner under a separate contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect existing membrane roofing system.

B. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
   1. If roof drains will be temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under

existing membrane roofing system components that are to remain.

C. Verify that rooftop utilities and service piping have been shut off before commencing Work.

D. Disconnect and re-connect existing utilities, such as gas, water, and electrical service, where necessary for roofing removal and replacement. Arrange for qualified tradesmen to make disconnections and re-connections. Take necessary safety precautions. Notify Owner of potential utility disruptions as specified in Division 1.

3.2 ROOF TEAR-OFF

A. General: Notify Owner each day of extent of roof tear-off proposed.

B. Remove aggregate ballast from roofing membrane.

3.3 EXISTING BASE FLASHINGS

A. Remove existing base flashings around parapets, curbs, walls, and penetrations.

1. Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.

C. Inspect parapet sheathing for deterioration and damage. If parapet sheathing has deteriorated, immediately notify Architect.

3.4 DISPOSAL

A. Collect and place demolished materials in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

1. Storage or sale of demolished items or materials on-site will not be permitted.

B. Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:
- A. Modified bituminous sheet with smooth and mineral granule surfacing.
- B. Cover board.
- C. Parapet flashing.
- D. Roofing asphalt.

1.2 RELATED REQUIREMENTS:
- A. Section 07600 - FLASHING AND SHEET METAL

1.3 SYSTEM DESCRIPTION:
- A. Built-up Roofing System: Two ply system (base sheet, cap sheet on cover board installed over existing roof, and flashings.
  1. Applicator takes responsibility for a complete waterproof installation of flashing, roofing membranes, and accessories.
- B. Roofing work of this Section and Section 07600, shall be the responsibility of a single installer specializing in roofing work.

1.4 DEFINITIONS
- A. Roofing Terminology: Refer to ASTM D 1079 for definitions of terms related to roofing work not otherwise defined in this Section.

1.5 SYSTEM PERFORMANCE REQUIREMENTS
- A. General: Install modified bituminous sheet roofing to withstand wind loads, structural movement, thermally induced movement, and exposure to weather, without failure.
- B. UL Listing: Provide modified bituminous sheet roofing system and component materials that have been tested for application and slopes indicated and are listed by Underwriters Laboratories, Inc. (UL) for:.
  1. Provide modified bitumen sheet roofing system that can be installed to comply with UL requirements for Class 90 wind-uplift requirements.
- C. UL Listing: Provide modified bituminous sheet roofing system and component materials that have been tested for application and slopes indicated and are listed by Underwriters Laboratories, Inc. (UL) for Class A external fire exposure.
  1. Provide roof-covering materials bearing UL Classification Marking on bundle, package, or container indicating that materials have been produced under UL's Classification and Follow-up Service.

1.6 SUBMITTALS - Submit in accord with Section 01340:
- A. Product Data: Manufacturer's technical data for each type of product specified. Include data substantiating that materials comply with requirements.
  1. For asphalt bitumen, provide label on each container or certification with each load of bulk bitumen, indicating flash point (FP), finished blowing temperature (FBT), softening point (SP), and equiviscous temperature (EVT).

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: Obtain primary products, including each type of roofing sheet, bitumen, and membrane flashings from a single manufacturer. Provide secondary products as recommended by manufacturer of primary products for use with roofing system specified.

B. Installer Qualifications: Engage an experienced Installer (Roofer) who is certified by modified bituminous sheet roofing system manufacturer as qualified to install manufacturer's roofing materials.

1. Installer's Field Supervision: Require Installer to maintain a full-time supervisor/foreman on job site during times that modified bituminous sheet roofing work is in progress and who is experienced in installation of roofing systems similar to type and scope required for this Project.

C. Preapplication Roofing Conference: Approximately 2 weeks before scheduled commencement of modified bitumen sheet roofing installation and associated work, meet at Project site with Installer to review methods and procedures related to roof work.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Store and handle roofing sheets in a dry, well-ventilated, weathertight place to ensure no possibility of significant moisture pickup. Store rolls of felt and other sheet materials on end on pallets or other raised surface.

B. Do not leave unused felts and other sheet materials on the roof overnight or when roofing work is not in progress unless protected from weather or other moisture sources.

C. Handle and store materials or equipment in a manner to avoid significant or permanent deflection of deck.

1.9 PROJECT CONDITIONS

A. Weather Condition Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit unit of Work to be installed in accordance with manufacturers' recommendations and warranty requirements.

1.10 SEQUENCING AND SCHEDULING

A. Sequence installation of modified bituminous sheet roofing with related units of Work specified in other Sections to ensure that roof assemblies, including roof accessories, flashing, trim, and joint sealers, are protected against damage from effects of weather, corrosion, and adjacent construction activity.

1.11 WARRANTY

A. General Warranty: The warranties specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. Roofers Warranty: Submit a written warranty, without monetary limitation (NDL), provided by and signed by roofing installer agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:

1. Warranty Period: 5 years.

C. Roofing Manufacturer's Warranty: Manufacturer agrees to repair or replace components of

roofing system that fail in materials or workmanship within specified warranty period. Submit a written warranty, without monetary limitation (NDL), signed by roofing system manufacturer agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:

1. Special warranty includes membrane roofing, base flashings, cover boards, fasteners, cover boards, substrate board, roofing accessories, and other components of roofing system.
2. Warranty Period: 15 years.

PART 2 - PRODUCTS

2.1 ROOF INSULATION

A. Cover Board: ½ inch thick high density fiberboard; GAF "Structodek HD Fiberboard" with minimum R-Value of 1.3 or roofing manufacturer's approved equivalent.

B. Perlite Board Insulation: Rigid, noncombustible, perlite-fiber boards of thicknesses indicated, with k-value of 0.36 at 75 deg F, integrally skinned surfaces, complying with ASTM C 728. Provide manufacturer's standard sizes.

1. Provide tapered 24-by-48-inch boards to provide slope-to-drain where indicated, fabricated with taper of 1/4 inch per foot in the 24-inch dimension.

2.2 MODIFIED BITUMINOUS SHEET ROOFING SYSTEM

A. Manufacturers: GAF is listed as standard of performance and material charateristics. Subject to compliance with requirements, products the following will be considered:

a. Tamko Asphalt Products, Inc.
b. U.S. Intec, Inc.
c. Firestone
d. Architect approved equivalent.

B. Modified Bituminous Base Sheet, General: GAF "Ruberoid Dual Smooth", ASTM D6162, Type II, Grade S, styrene Butadiene Styrene (SBS)-modified asphalt sheets with woven or non-woven polyester sheet reinforcing; manufacturer's standard sheet thickness. Furnish modified bituminous sheet materials complying with the following:

1. Tensile Strength @ 0°F (min), lbf/in, ASTM D5147: 125
2. Elongation @ 0°F (min), % , ASTM D5147: 2
3. Low Temperature Flexibility (max), °F , ASTM D5147: 0
4. Tear Strength (min), lbf , ASTM D5147: 90
5. Dimensional Stability (max) % ASTM D5147: 0.5

C. Modified Bituminous Cap Sheet, General: GAF "Rubberoid MOP 170 FR", ASTM D6164, Type I, styrene Butadiene Styrene (SBS)-modified asphalt sheets with continuous layer of mineral granules factory-applied to top exposed surface with woven or non-woven polyester sheet reinforcing; manufacturer's standard sheet thickness. Furnish modified bituminous sheet materials complying with the following:

1. Tensile Strength: ASTM D 5147, 100 lbf/in.
2. Ultimate Elongation: ASTM D 5147, 45%.
3. Tear Strength: ASTM D 5147, 96 lbs.
4. Granule color: White.

D. Comply with "NRCA Roofing and Waterproofing Manual," Specification Plate No. 47-3--IMBF.
E. Manufacturer's Installation Guide: GAF 1-2-1MGFR.

2.3 MISCELLANEOUS MATERIALS AND ACCESSORIES
A. Asphalt Primer: ASTM D 41.
B. Roofing Asphalt: ASTM D 312, Type III or IV as recommended by roofing system manufacturer for application.
C. Cold-Applied Adhesive: Roofing system manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive specially formulated for compatibility and use with roofing membrane and base flashings.
D. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.
E. Parapet Flashing: Styrene Butadiene Styrene (SBS)-modified asphalt sheets with continuous layer of mineral granules factory-applied to top exposed surface; GAF "Rubberoid" or approved equivalent.
F. Roof Membrane and Flashing Fasteners: When anchoring to treated wood blocking, use stainless steel fasteners of appropriate size and type.
G. Cants: Perlite board, ASTM C 728.
H. Tapered Edge Strips: Rigid perlite board, ASTM C 728.
I. Mastic Sealant: Polyisobutylene (plain or bituminous modified), nonhardening, nonmigrating, nonskinning, and nondrying.
J. Roof Penetration Seals (pitch pans): Adhesive attached precast curb components sized for application with two-component, pourable urethane sealant; ChemLink "ChemCurb" Ph. 800/826-1681 or roofing manufacture approved equivalent.
K. Roof-top Conduit and Gas Line Supports - Provide supports or approved equivalent:
    1. Miro Industries " Model 1.5" for pipes and conduits up to 1.9", "Model 3-R-4" for pipe sizes 2 to 6 inch.
    2. Mifab Industries " CXM with pipe clamp" for pipes and conduits up to 1.9", "CRM" for pipe sizes 2 to 6 inch.
L. Walkway Cap Sheet Strips: Second layer of cap sheet in contrasting granualr surface color.
M. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Examine substrate surfaces to receive modified bitumen sheet roofing system and associated work and conditions under which roofing will be installed. Do not proceed with roofing until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
    1. Verify that deck is securely fastened with no projecting fasteners and with no adjacent units in excess of 1/16 inch out of plane.

3.2 GENERAL INSTALLATION REQUIREMENTS
A. Protect other work from spillage of modified bitumen roofing materials, and prevent liquid

materials from entering or clogging drains and conductors. Replace or restore other work damaged by installation of modified bituminous sheet roofing system work.

B. Coordinate installing roofing system components so that insulation and roofing plies are not exposed to precipitation or left exposed overnight. Provide cut offs at end of each day's work to cover exposed ply sheets and insulation with a course of coated felt with joints and edges sealed with roofing cement. Remove cut offs immediately before resuming work.

C. Asphalt Bitumen Heating: Heat and apply bitumen according to EVT Method as recommended by NRCA. Do not raise temperature above minimum normal fluid-holding temperature necessary to attain EVT (plus 5 deg F or 14 deg C, at point of application) more than 1 hour prior to time of application. Determine flash point, finished blowing temperature, EVT, and fire-safe handling temperature of bitumen either by information from manufacturer or by suitable tests. Do not exceed recommended temperature limits during bitumen heating. Do not heat bitumen to a temperature higher than 25 deg F below flash point. Discard bitumen that has been held at temperature exceeding finished blowing temperature (FBT) for more than 3 hours. Keep kettle lid closed except when adding bitumen.

D. Bitumen Mopping Weights: For interply mopping, apply bitumen at the rate of 25 lb of asphalt per roof square (plus or minus 25 percent on a total-job average basis).

E. Substrate Joint Penetrations: Prevent bitumen from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction. Where mopping is applied directly to substrate, tape substrate joints or, where steep asphalt is used, hold asphalt back 2 inches from both sides of the joint.

3.3 INSULATION INSTALLATION

A. General: Comply with insulation manufacturer's instructions and recommendations for the handling, installation, and bonding or anchorage of insulation to substrate.

B. Trim surface of insulation where necessary at roof drains so completed surface is flush with discharge of drain.

3.4 ROOF MEMBRANE INSTALLATION

A. Shingling Plies: Install membrane with ply sheets shingled uniformly to achieve required number of membrane plies throughout. Shingle in proper direction to shed water.

B. Cant Strips/Tapered Edge Strips: Install preformed 45-degree cant strips at junctures of modified bituminous sheet roofing system membrane with vertical surface. Provide preformed, tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

C. Base Sheet: Install one lapped course of base sheet with method recommended by manufacturer.

D. Cap Sheet: Install top sheet using hot bitumen at the same rate as base sheets to form a continuous bonded membrane.

1. Extend modified bituminous sheet to 2 inches above top edge of cant strip and terminate.
2. Nail edges of membrane to wood blocking at perimeter edges of roof prior to installing metal gravel stops/fascias. Space nails at minimum 8 inches o.c.

E. Roof Penetration Seals: Install penetration seals in accordance with manufacturer's recommendations. Install at conduit, gas, or structural support penetrations and other locations noted on drawings, not at plumbing vents.

F. Roof-top Conduit and Gas Line Supports: Install pipe support in accordance with manufacturer's

recommendations. Remove existing redwood or treated wood supports. Use manufacturer's standard height adjusters to accommodate sloping pipes and conduit.

1. For pipes 2 inches in diameter or smaller, install supports maximum five feet on center maximum.
2. For pipes larger than 2 inches in diameter or smaller, install supports maximum six to eight feet on center maximum.

G. Walkway Pads: Install walkway treads where indicated.

H. Set-On Accessories: Where small roof accessories are set on modified bituminous sheet roofing, set metal flanges in a bed of roofing cement and seal penetration of membrane with bead of roofing cement to prevent flow of bitumen from membrane.

3.5 MEMBRANE FLASHING AND STRIPPING

A. Install modified bituminous flashing at cant strips and other sloping and vertical surfaces, at roof edges, and at penetrations through roof. Install one ply of flashing sheet material by mopping substrate and back of flashing sheet with Type III asphalt and embedding flashing solidly against substrate. Extend flashing a minimum of 6 inches onto modified bituminous sheet roofing.

B. Install modified bituminous stripping where metal flanges are set on roofing. Install one ply of modified bituminous stripping in a continuous mopping of Type III asphalt and extend stripping a minimum of 6 inches out onto the roof membrane.

C. Allow for expansion of running metal flashing and edge trim that adjoins roofing. Do not seal or bond membrane or modified bituminous flashing or stripping to metal flanges over 3 feet in length.

D. Counter-Flashings: Counter-flashings, cap flashings, expansion joints, and similar work to be coordinated with modified bitumen roofing work are specified in other Sections.

E. Roof Accessories: Miscellaneous sheet metal accessory items, including piping vents, insulation vents and other devices to be coordinated with modified bituminous roofing system work, are specified in other Sections.

F. Roof Drains: Set 30-by-30-inch metal flashing in bed of asphalt roofing cement on completed roofing membrane. Cover metal flashing with roofing membrane cap-sheet stripping and extend a minimum of 4 inches beyond edge of metal flashing onto field of roofing membrane. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.

1. Install stripping according to roofing system manufacturer's written instructions.

3.6 PROTECTING ROOFING

A. Protect roofing during remainder of construction period.

B. Repair or replace (as required) deteriorated or defective work found at time of above inspection to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:
- A. Exterior wall copings.
- B. Counter flashings over bituminous base flashings.
- C. Roof, sill, and cant strip protection.
- D. Roof expansion joint flashings.
- E. Counter flashings for roof mounted mechanical equipment and services.

1.2 RELATED REQUIREMENTS:
- A. Section 07527 - SBS-MODIFIED BITUMINOUS SHEET ROOFING
- B. Section 07900 - JOINT SEALANTS

1.3 REFERENCE STANDARDS:
- A. ASTM A 526–90: Specification for Steel Sheet, Zinc-Coated Galvanized) by the Hot-Dip Process, Commercial Quality
- B. ASTM A 527–90: Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Lock-Forming Quality
- C. ASTM B370 - Copper Sheet and Strip for Building Construction
- D. ASTM D2822 - Asphalt Roof Cement
- E. FS SS-C-00153a - Cement, Bituminous, Plastic - Type I.
- F. SMACNA - Architectural Sheet Metal Manual.

1.4 SUBMITTALS - Submit in accord with Section 01340:
- A. Product Data: Manufacturer's technical data for flashing materials.
- B. Shop Drawings: Clearly detail shaping, jointing, length of sections, fastening, and installation details.

1.5 EXISTING CONDITIONS/PROTECTION:
- A. Exercise care when working on or about roof surfaces to avoid damaging or puncturing membrane or flexible flashings.
- B. Place plywood panels on roof surfaces adjacent to work of this Section and on access routes. Keep in place until completion of work.

1.6 QUALITY CONTROL:
- A. Work of this Section and of Section 07527 - SBS-MODIFIED BITUMEN SHEET ROOFING, shall be the responsibility of a single installer specializing in roofing work so that there will be undivided responsibility for this work.
- B. Firms not acceptable to the manufacturer of primary roofing materials are not permitted to perform installation.
- C. Furnish, fabricate and install sheet metal in compliance to SMACNA Manual.

1.7 GUARANTY:
- A. Provide a 15 year warranty covering material quality, performance, and installation.

PART 2 - PRODUCTS

2.1 SHEET METALS:

A. Galvanized Steel Sheet: ASTM A 526, G 90, commercial quality, or ASTM A 527, G 90, lock-forming quality, hot-dip galvanized steel sheet with 0.20 percent copper, mill phosphatized where indicated for painting; minimum of 24 gauge, unless otherwise indicated.

B. Prefinished Galvanized Steel: Aluminized steel; 24 gauge with factory applied KYNAR 500 fluoropolymer finish or Architect approved equivalent with minimum 16 standard colors for Architect's selection.

2.2 ACCESSORY MATERIALS AND COMPONENTS:

A. Fasteners:

1. Hook Strips: Concealed 22 gauge with screws and nails of same material and color as flashings; sized to suit application.
2. Nails: 11 gauge, hot dipped, galvanized nails with annular rings and minimum 3/8" diameter heads.
3. Neoprene Head Screws: #12 stainless steel plated self-tapping screws with hexagonal heads and metal jacketed neoprene rubber washer.
4. Nylon Masonry Nails: Nylon jacketed drive pin equal to Rawl Nylon Nailin #2543.
5. Stainless Steel Masonry Nails: Stainless steel pin and zinc jacketed fastener equal to Rawl Zamac Nailin #2870.
6. Stainless Steel Masonry Nailer Washer: EPDM sealing washer bonded to Type 304 stainless steel jacket equal to Rawl EPDM Sealing Washers.
7. Expansion Bolts: Carbon steel expanding stud anchor bolt equal to Rawl-Stud.
8. Roof Membrane and Flashing Fasteners: When anchoring to treated wood blocking, use stainless steel fasteners of appropriate size and type.

B. Solder and Flux: Type recommended for materials being used.

C. Asphalt Roofing Cement: ASTM D2822, cut-back type.

D. Rubber-Asphalt Sealing Compound: Cold mastic type as manufactured by the roofing membrane manufacturer.

E. Bituminous Paint: Acid and alkali resistant type; black in color.

F. Sealant: As specified in Section 07900 - JOINT SEALANTS.

2.3 FABRICATION:

A. Form metal sections square, true, and accurate to size, free from distortion and other defects detrimental to appearance or performance.

B. Form metal sections in 10 feet lengths where possible. Make allowances for expansion at dynamic joints of walls, parapets, and other surfaces.

C. Sheet metal seams are to be butt hairline with 8 inches wide splice backup type except at corners. Fabricate corners minimum of 18x18 inches mitered, soldered or welded, and sealed as one piece.

D. Wipe and wash clean, soldered joints, to remove traces of flux immediately after soldering.

E. Hem exposed edges of flashings 1/2 inch on underside.

F. Fabricate flashings to allow toe to extend minimum 2 inches over roofing joint materials. Return and brake edges.

G. Fabricate exposed joints with 4 inch wide concealed splice plate.

H. Prefabricate coping and parapet caps corners with welded or soldered seams.

2.4 SHEET METAL FABRICATION:

A. 1. Formed Metal Copings: Fig. 3-7, A.
2. Coping Joints: Fig. 3-1.
3. Splash Pan: Fig. 1-36.
4. Expansion Joints: Fig. 5-1, 5-3, 5-7 configuration suited to condition..
5. Through-Wall Scupper Design: Fig. 1-26.
6. Through-Wall Overflow (Roof Drain Header) Scupper Design: Fig. 1-30.
7. Pipe Penetration Flashing (with no pitch pan): Fig. 4-15 C.
8. Mechanical Roof Penetrations: Fig. 4-15, appropriate to condition.
9. Pipe Penetration Flashing: Fig. 4-14, 4-15, configuration suited to condition.
10. Mechanical Roof Penetrations: Plates 65 and 66, appropriate to condition.

PART 3 - EXECUTION

3.1 INSTALLATION:

A. Secure flashings in place using specified type fasteners or manufacturer's recommended mastic. Use exposed fasteners in locations approved by Architect. Ensure exposed fasteners are same finish as flashings.

B. Insert metal flashings into reglets to form tight fit. Secure in place with wedges at maximum of 30 inches on center. Seal flashings into reglets with sealant.

C. Apply sealing compound at junction of metal flashings and asphalt felt flashings.

D. Lock seams and end joints. Fit flashings tight and waterproof in place. Make corners square, surfaces true, and straight in planes, and lines accurate to profiles.

E. Install membrane flashings in accord with manufacturer's instuctions. Ensure all proposed substrates are adequately clean and free of deleterious protrusions.

F. Counter-flash mechanical and electrical items projecting through the membrane roofing.

G. Seal metal joints watertight.

H. Secure gutters to building with 1" x 1/8" straps at 3'-0" to support gutter and water. Provide for expansion in gutter runs over 50 ft. in length.

I. Fabricate downspouts water tight with hemmed seams. Anchor downspouts with 1" x 1/8" straps attached to downspouts and secure to wall with appropriate fasteners, three per downspout over 6 feet long, 2 per downspout under 6 feet long.

3.2 SCHEDULE:

A. Install prefinished sheet metal on all exposed to ground view, typically copings and overflow scuppers. Install galvanized sheet metal at concealed to ground view locations, typically flashing on roof and back side of parapets.

**** END OF SECTION ****

PART 1 - GENERAL

1.1 SECTION INCLUDES:
- A. Joint preparation.
- B. Sealing exterior joints.
- C. Sealants and accessories.

1.2 RELATED REQUIREMENTS:
- A. Section 07527 - SBS-MODIFIED BITUMINOUS SHEET ROOFING
- B. Section 07600 - FLASHING AND SHEET METAL

1.3 REFERENCES:
- A. ASTM C790 - Recommended Practices for Use of Latex Sealing Compounds
- B. ASTM C804 - Recommended Practices for Use of Solvent Release Type Sealants.
- C. ASTM C834 - Standard Specifications for Latex Sealing Compounds.
- D. ASTM C920 - Specification for Elastomeric Joint Sealants.
- E. ASTM C962 - Guide for Use of Elastomeric Joint Sealants.
- F. ASTM C1085 - Butyl-Rubber Based Solvent Released Sealants.

1.4 SUBMITTALS - Submit in accord with Section 01340:
- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch wide joints formed between two 6-inch- long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- D. Joint-Sealant Schedule: Include the following information:
  1. Joint-sealant application, joint location, and designation.
  2. Joint-sealant manufacturer and product name.
  3. Joint-sealant formulation.
  4. Joint-sealant color.

1.5 QUALITY ASSURANCE
- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
- C. Mockups: Install sealant in mockups of assemblies specified in Section 04200 - MASONRY that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

1.6 PROJECT CONDITIONS
- A. Do not proceed with installation of joint sealants under the following conditions:
  1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer[or are below 40 deg F.
  2. When joint substrates are wet.

3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

C. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

D. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

E. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 MATERIALS:

A. Sealants:

1. Silicone Base - Use: Exterior joint conditions and interior dynamic joints: ASTM C920, one-part nonacid-curing silicone,, type S, grade NS, class 25. Acceptable products are:
   a. BOSTIK "Chem-Calk 1000"
   b. DOW CORNING "795 Silicone"
   c. GENERAL ELECTRIC "Silpruf 2600 "
   d. Architect approved equivalent
2. Butyl Sealant - Use: Exterior metal to metal conditions not exposed to view. One-part, non-sag, solvent-released-curing, polymerized butyl sealant complying with ASTM C1085. Acceptable products are:
   a. SONNEBORN "Multi-purpose Sealant"
   b. TREMCO "Butyl Sealant"
   c. Architect approved equivalent.

2.3 ACCESSORIES:

A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings (Backer Rod): ASTM C 1330, Type C (closed-cell material with a surface skin) or other type recommended by sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Primer: Non-staining type, recommended by sealant manufacturer to suit application.

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

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Examine joints indicated to receive joint sealers for compliance with requirements for compliance with requirements for joint configuration, installation tolerances and other conditions affecting joint sealer performance. Do not proceed with installation of joint sealers until unsatisfactory conditions have been corrected.

3.2 PREPARATION:

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealers to comply with recommendations of joint sealer manufacturers and the following requirements:

1. Remove all foreign material from joint substrates which could interfere with adhesion of joint sealer, including dust; paints, except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer; old joint sealers; oil; grease; waterproofing; water repellants; water; surface dirt; and frost.
2. Clean concrete, masonry, unglazed surfaces of ceramic tile and similar porous joint substrate surfaces, by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealers. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
3. Remove laitance and form release agents from concrete.
4. Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile; and other nonporous surfaces by chemical cleaners or other means which are not harmful to substrates or leave residues capable of interfering with adhesion of joint sealers.

B. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealer manufacturer based on preconstruction joint sealer-substrate tests or prior experience. Apply primer to comply with joint sealer manufacturer's recommendations. Confine primers to areas of joint sealer bond. Do not allow spillage or migration onto adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALERS:

A. General: Comply with joint sealer manufacturers' printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Elastomeric Sealant Installation Standard: Comply with recommendations of ASTM C 962 for use of joint sealants as applicable to materials, applications and conditions indicated.

C. Solvent-Release-Curing Sealant Installation Standard: Comply with requirements of ASTM C 804 for use of solvent-release-curing sealants.

D. Latex Sealant Installation Standard: Comply with requirements of ASTM C 790 for use of latex sealants.

E. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths which allow optimum sealant movement capability.
   a. Do not leave gaps between ends of joint fillers.
   b. Do not stretch, twist, puncture, or tear joint fillers.

c. Remove absorbent joint fillers which have become wet prior to sealant application and replace with dry material.

2. Install bond breaker tape between sealants and joint fillers, compression seals, or back of joints where adhesion of sealant to surfaces at back of joints would result in sealant failure.

F. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths which allow optimum sealant movement capability.

G. Tooling of Nonsag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, concave joint to eliminate air pockets and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

3.4 CLEANING:

A. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealers and of products in which joints occur.

3.5 PROTECTION:

A. Protect joint sealers during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of substantial completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealers immediately and reseal joints with new materials to produce joint sealer installations with repaired areas indistinguishable from original work.

**** END OF SECTION ****