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STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

INFORMATION FOR BIDDERS

Institution or Agency: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

1. **BID FORM:** Bidders are required to use the Bid form attached to the bidding documents. Each bidder is required to bid on all alternates and indicate the time from the date of the Notice to Proceed to Substantial Completion in calendar days, and in addition, the bidder is required to indicate the period of time to finally complete the project from Substantial Completion to Final Acceptance, also in calendar days. Bids indicating times for Substantial Completion and Final Acceptance in excess of the number of days indicated in the Advertisement for Bids for completion of the entire Project may be found non-responsive and may be rejected. The bid shall not be modified or conditioned in any manner. Preference is for electronic bid submission via the posting in BidNetDirect: www.bidnetdirect.com. Hard copy bids shall be submitted in sealed envelopes bearing the address and information shown below. If a hard copy bid is submitted by mail, this aforementioned sealed envelope should be enclosed in an outer envelope and sent to the following addressee:

Red Rocks Community College
Attn: Mark Bana, Facilities Director
13300 West Sixth Avenue
Lakewood, CO 80228

The outside of the sealed inner envelope should bear the following information:

Project #
Project Name
Name and Address of Bidder
Date of Opening
Time of Opening

2. **INCONSISTENCIES AND OMISSIONS:** Bidders may request clarification of any seeming inconsistencies, or matters seeming to require explanation, in the bidding documents at least three (3) business days prior to the time set for the opening of Bids. Decisions of major importance on such matters will be issued in the form of addendum.
3. **APPLICABLE LAWS AND REGULATIONS:** The bidder's attention is called to the fact that all work under this Contract shall comply with the provisions of all state and local laws, approved state building codes, ordinances and regulations which might in any manner affect the work to be done or those to be employed in or about the work. Attention is also called to the fact that the use of labor for work shall be governed by the provisions of Colorado law which are hereinafter set forth in Articles 27 and 52E of the GENERAL CONDITIONS. This includes the requirements for apprenticeship and prevailing wage on Public Projects.
4. **BID SECURITY:** A bid security of not less than 5% of the bid price is required when the price is estimated to be \$50,000 or more. The security shall be a bond by a surety company, the equivalent in cash, or otherwise supplied in a form satisfactory for the State. Noncompliance requires the bid to be rejected as nonresponsive.
- 5.
6. **TAXES:** The bidder's attention is called to the fact that the Bid submitted shall exclude all applicable federal excise or manufacturers' taxes and all state sales and use taxes as hereinafter set forth in Article 9C of the GENERAL CONDITIONS.
7. **OR EQUAL:** The words "OR EQUAL" are applicable to all specifications and drawings relating to materials or equipment specified. Any material or equipment that will fully perform the duties specified, will be considered "equal", provided the bid submits proof that such material or equipment is of equivalent substance and function

and is approved, in writing. Requests for the approval of "or equal" shall be made in writing at least five (5) business days prior to bid opening. During the bidding period, all approvals shall be issued by the Architect/Engineer in the form of addenda at least two (2) business days prior to the bid opening date.

8. **ADDENDA:** Owner/architect initiated addenda shall not be issued later than two (2) business days prior to bid opening date. All addenda shall become part of the Contract Documents and receipt must be acknowledged on the Bid form.
9. **METHOD OF AWARD - LOWEST RESPONSIBLE BIDDER:** If the bidding documents for this project require alternate prices, additive and/or deductible alternates shall be listed on the alternates bid form provided by the Principal Representative. Bidders should note the Method of Award is applicable to this Bid as stated below.
 - A. **DEDUCTIBLE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid combined with deductible alternates, deducted in numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The subtraction of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be subtracted from the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - B. **ADDITIVE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid plus all additive alternates added in the numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The addition of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be added to the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - C. **DEDUCTIBLE AND ADDITIVE ALTERNATES:** Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.
9. **NOTICE OF CONTRACTOR'S SETTLEMENT** – Agencies/institutions must indicate in the initial Solicitation (Advertisement for Bids, Documented Quotes, or Requests for Proposals) whether settlement will be advertised in newspapers or electronic media.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

APPRENTICESHIP UTILIZATION CERTIFICATION
(Public Projects of \$1 million or more)

Institution/Agency: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2
General Contractor: _____

For each trade listed below attach documentation that all firms identified participate in apprenticeship programs as described in the Certification Statement below.

TRADE	SUBCONTRACTOR	UNION CERTIFICATION
Mechanical		
Sheet Metal		
Fire Suppression		
Sprinkler Fitting		
Plumbing		
Electrical		

CERTIFICATION STATEMENT **§ 24-92-115, C.R.S.** **(SB 19-196)**

The above named General Contractor certifies and agrees as follows:

That all firms identified above participate in apprenticeship programs registered with the United States Department of Labor’s Employment and Training Administration or state apprenticeship councils recognized by the United States Department of Labor and have a proven record of graduating apprentices at a minimum of fifteen percent of its apprentices for at least three of the past five years. The General Contractor shall supply supporting documentation from the United States Department of Labor’s office of apprenticeship verifying the certification.

The above documentation shall be made publicly available by the contracting agency through its website within thirty (30) days from when it is submitted.

The General Contractor shall agree to provide additional documentation to the contracting agency regarding affected apprenticeship training programs relating to the requirements above. If a contracting agency determines that a subcontractor has willfully falsified documentation or willfully misrepresented their qualifications, the agency shall direct the General Contractor to terminate the subcontractor contract immediately and the subcontractor will be immediately removed from the public project. At the discretion of the Director of the Department of Personnel, the State may initiate the process to debar the General Contractor pursuant to § 24-109-105, C.R.S., and may pursue any other remedy provided by law.

CERTIFIED and AGREED to this _____ day of _____, 20__.

GENERAL CONTRACTOR:

Full Legal Name
BY: _____



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

BID

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

Bidder Acknowledges Receipt of Addenda Numbers:
Bidder Anticipates Services outside the United States or Colorado:*
Bidder will comply with 80% Colorado Labor on project above \$500,000:
Bidder is a Service-Disabled Veteran Owned Small Business:*

Base Bid \$

(Refer to Bid Alternate Form SC-6.13.1 Attached, If Applicable)

Bidder's Time of Completion
a. Time Period from Notice to Proceed to Substantial Completion:
b. Time Period from Substantial Completion to Final Acceptance:
c. Total Time of Completion of Entire Project (a + b):

- 1. BID: Pursuant to the advertisement by the State of Colorado dated ... the undersigned bidder hereby proposes to furnish all the labor and materials and to perform all the work required for the complete and prompt execution of everything described or shown in or reasonably implied from the Bidding Documents, including the Drawings and Specifications, for the work and for the base bid indicated above. Bidders should include all taxes that are applicable.
2. EXAMINATION OF DOCUMENTS AND SITE: The bidder has carefully examined the Bidding Documents, including the Drawings and Specifications, and has examined the site of the Work, so as to make certain of the conditions at the site and to gain a clear understanding of the work to be done.
3. PARTIES INTERESTED IN BID: The bidder hereby certifies that the only persons or parties interested in this Bid are those named herein, and that no other bidder or prospective bidder has given any information concerning this Bid.
A. If the bidder anticipates services under the contract or any subcontracts will be performed outside the United States or Colorado, the bidder shall provide in a written statement which must include, but need not be limited to the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform such services. (Does not apply to any project that receives federal moneys) *
B. For State Public Works projects per C.R.S. 8-17-101, Colorado labor shall be employed to perform at least 80% of the work. Colorado Labor means any person who is a resident of the state of Colorado at the time of the Public Works project. Bidders indicating that their bid proposal will not comply with the 80% Colorado Labor requirement are required to submit written justification along with the bid submission. (Does not apply to any project that receives federal moneys) *
C. A Service-Disabled Veteran Owned Small Business (SDVOSB) per C.R.S. 24-103-211, means a business that is incorporated or organized in Colorado or maintains a place of business or has an office in Colorado and is officially registered and verified by the Center for Veteran Enterprise within the U.S. Department of Veteran Affairs. Attach proof of certification along with the bid submission. *
D. Projects estimated to be \$1 million or more that do not receive federal funds are required to comply with the State Apprenticeship Utilization requirements C.R.S. 24-92-115
E. Projects estimated to be \$500,000 or more that do not receive federal funds are required to comply with the State Prevailing Wage requirements C.R.S. 24-92-201 through 210.
4. BID GUARANTEE: This Bid is accompanied by the required Bid Guarantee. Per C.R.S. §24-105-201 If the construction value is \$50,000 or greater a Bid Bond and Power of Attorney or Proposal Guaranty is required in an amount not less than 5% of the total Bid. You are authorized to hold said Bid Guarantee for a period of not more than thirty (30) days after the opening of the Bids for the work above indicated, unless the undersigned bidder is awarded the Contract, within said period, in which event the Office of the State Architect, may retain said Bid Guarantee, until the undersigned bidder

has executed the required Agreement and furnished the required Performance Bond, Labor and Material Payment Bond, and Insurance Policy.

5. **TIME OF COMPLETION:** The bidder agrees to achieve Substantial Completion of the Project from the date of the Notice to Proceed within the number of calendar days entered above, and in addition, further agrees that the period between Substantial Completion and Final Acceptance of the Project will not exceed the number of calendar days noted above. If awarded the Work, the bidder agrees to begin performance within ten (10) days from the date of the Notice to Proceed subject to Article 46, Time of Completion and Liquidated Damages of the General Conditions of the Contract, and agrees to prosecute the Work with due diligence to completion. The bidder represents that Article 7D of the Contractor's Agreement (SC-6.21) has been reviewed to determine the type and amount of any liquidated damages that may be specified for this contract.
6. **EXECUTION OF DOCUMENTS:** The bidder understands that if this Bid is accepted, bidder must execute the required Agreement and furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance within ten (10) days from the date of the Notice of Award, and that the bidder will be required to sign to acknowledge and accept the Contract Documents, including the Drawings and Specifications.
7. **ALTERNATES:** Refer to the Information for Bidders (SC-6.12) for Method of Award for Alternates and use State Form SBP-6.13.1 Bid Alternates form to be submitted with this bid form if alternates are requested by the institution/agency in the solicitation documents.
8. **Submit wage rates** (direct labor costs) for prime contractor and subcontractor as requested by the institution/agency in the solicitation documents.
9. **The right is reserved to waive informalities and to reject any and all Bids.**

**Does not apply to projects for Institutions of Higher Education that have opted out of the State Procurement Code.*

SIGNATURES: If the Bid is being submitted by a Corporation, the Bid shall be signed by an officer, i.e., President or Vice-President. If a sole proprietorship or a partnership is submitting the Bid, the Bid shall so indicate and be properly signed.

Dated this _____ Day of _____, 20____

THE BIDDER:

Company Name

Address (including city, state and zip)

Phone number:

Name (Print) and Title

Signature



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

COLORADO

BID ALTERNATES FORM

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.

Additive Alternates (If Applicable)

Refer to specification section _____ for descriptions of add alternates. If the add alternates are accepted, the base bid would be modified by the amount entered by the bidder.

A.A. No. 1	<u>Sheet Metal Trim at Radial Roof</u>	Add \$	_____
A.A. No. 2	<u>90-mil EPDM in lieu of 60-mil</u>	Add \$	_____
A.A. No. 3	<u>Lightweight Concrete Fill Removal @ Area C4</u>	Add \$	_____
A.A. No. 4	_____	Add \$	_____
A.A. No. 5	_____	Add \$	_____
A.A. No. 6	_____	Add \$	_____
A.A. No. 7	_____	Add \$	_____
A.A. No. 8	_____	Add \$	_____
A.A. No. 9	_____	Add \$	_____
A.A. No. 10	_____	Add \$	_____

Deductive Alternates (If Applicable)

Refer to specification section _____ for descriptions of the deductive alternates. If the deductive alternates are accepted, the base bid would be modified by the amount entered by the bidder.

D.A. No. 1	_____	Deduct \$	_____
D.A. No. 2	_____	Deduct \$	_____
D.A. No. 3	_____	Deduct \$	_____
D.A. No. 4	_____	Deduct \$	_____
D.A. No. 5	_____	Deduct \$	_____
D.A. No. 6	_____	Deduct \$	_____
D.A. No. 7	_____	Deduct \$	_____
D.A. No. 8	_____	Deduct \$	_____
D.A. No. 9	_____	Deduct \$	_____
D.A. No. 10	_____	Deduct \$	_____

THE BIDDER:

Company Name

Signature

Date



STATE OF COLORADO
 OFFICE OF THE STATE ARCHITECT
 STATE BUILDINGS PROGRAM

UNIT PRICING FORM

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

The unit prices below shall be used to determine adjustment to the contract sum when changes in the work involving said items are deemed necessary.

Unit Prices shall apply until the date of contract completion established at the time of Notice to Proceed.

All unit prices shall include the pro-rata share of all costs of materials, equipment and disposal required to complete the work item. Overhead, profit and bond will be calculated per Change Order Proposal form SC-6.312.

(Note: Architect/Engineer should complete a brief description below based on their complete description provided in Division 01 of their specification before inserting into the solicitation)

UNIT PRICING

Number	Description	Unit of Measure	Unit Price
U1	Provide unit price for replacement of one (1) full cast iron roof drain assembly	Per Drain	\$
U2	Remove and replace ceiling hard-lid ceiling gypsum (minimum 5/8") as required for new drain plumbing, if damaged during installation.	Per 32 SF	\$
U3	Repair damaged concrete deck per specification requirements	Per 25 SF	\$
U4	Remove, replace and repair wet/damaged LWC deck per specification requirements	Per 25 SF	\$
U5	Remove and replace deteriorated metal roof deck section	Per SF	\$
U6	Prepare and coat corroded steel decking with rust inhibiting / converting coating	Per SF	\$
U7	Coping Stone Joint Repair	Per LF	\$
U4	Installation of new Z-Bracket Wind Clip and associated fasteners for additional RTU securement.	Per Clip Assembly	\$

THE BIDDER:

 Company Name

 Signature

 Date



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

COLORADO BID BOND

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, _____ hereinafter called the "PRINCIPAL", is submitting a PROPOSAL for the above described project, to the STATE OF COLORADO, hereinafter called the "OBLIGEE".

WHEREAS, the Advertisement for Bids has required as a condition of receiving the Proposals that the Principal submit with the PROPOSAL GUARANTY in an amount not less than five per cent (5%) of the Proposal, which sum it is specifically agreed is to be forfeited as Liquidated Damages in the event that the Principal defaults in his obligation as hereinafter specified, and, in pursuance of which Requirement, this Bid is made, executed and delivered.

NOW THEREFORE, the Principal and _____ a corporation of the State of _____, duly authorized to transact business in Colorado, as Surety, are held and firmly bound unto the Obligee, in the sum of five per cent (5%) of the Principal's total bid price, lawful money of the United States for the payment of which sum, well and truly to be made to the Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

FURTHER THAT, a condition of the obligation that the Principal shall maintain his Proposal in full force and effect for thirty (30) days after the opening of the proposals for the project, or, if the Principal's Proposal is accepted, the Principal shall, within the prescribed time, execute the required Agreement, furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy, and Certificates of Insurance, then this obligation shall be null and void, otherwise it shall remain in full force and effect, and subject to forfeiture upon demand as Liquidated Damages.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of _____, A.D., 20__.

(Corporate Seal)

THE PRINCIPAL

Company Name

Address (including city, state and zip)

Phone number:

ATTEST

Secretary

Name (Print)

Signature

Name (Print) and Title

SIGNATURES If the "Principal" is doing business as a Corporation, the Bid Bond shall be signed by an officer, i.e., President or Vice President. The signature of the officer shall be attested to by the Secretary and properly sealed.

If the "Principal" is an individual or a partnership, the Bid Bond shall so indicate and be properly signed.

(Corporate Seal)

THE SURETY

By _____

Secretary

Attorney-in-Fact

**THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED.
FAILURE TO PROVIDE A PROPERLY EXECUTED BID BOND WITH A PROPERLY EXECUTED POWER OF ATTORNEY
WILL RESULT IN THE BIDDER'S PROPOSAL BEING DEEMED NON-RESPONSIVE.**



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF AWARD

(Design/Bid/Build and Design/Build Lump Sum Agreements)

Date of Notice: _____
Date to be inserted by the Agency/Institution
Agency/Institution: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

TO: [Legal name of Contractor]

The State of Colorado, represented by the undersigned, has considered the Proposals submitted for the above described work.

Your Proposal, deemed to be in the best interest of the State of Colorado, in the amount of _____ DOLLARS AND NO/100* (\$_____*) is hereby accepted, pending final execution of the Agreement.

You **are** required to execute the approved Agreement and to furnish the Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, [Apprenticeship Utilization Certification\(s\) \(if applicable\)](#) and Labor Overhead (Direct Labor Burdens) for Work performed by Contractor and major Subcontractors within ten (10) days from the date of this Notice.

If you fail to execute said Agreement and to furnish said Performance Bond, Labor and Material Payment Bond, Insurance Policy, Certificates of Insurance, and Labor Overhead (Direct Labor Burdens) as described above within ten (10) days from the date of this Notice, the State Controller is entitled to retain the amount of the Proposal Guaranty submitted with your Proposal as Liquidated Damages. In this event, the right is reserved to consider all of your rights arising out of the acceptance of your Proposal as abandoned and to award the work covered by your Proposal to another, or to re-advertise the Project, or otherwise dispose thereof.

By _____ Date _____ By _____ Date _____
State Buildings Program Principal Representative
(or Authorized Delegate) (Agency/Institution)

When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



COLORADO

**CONTRACTOR'S AGREEMENT
DESIGN/BID/BUILD (D/B/B)
(STATE FORM SC-6.21)**

STATE AGENCY: Red Rocks Community College

DEPARTMENT ID: _____

CONTRACT ID #: _____

PROJECT #: 2023-084M22

PROJECT NAME: Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

VENDOR NAME: _____

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

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SIGNATURE PAGE

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

Each person signing this Agreement represents and warrants that the signer is duly authorized to execute this Agreement and to bind the Party authorizing such signature.

*Persons signing for Contractor hereby swear and affirm that they are authorized to act on Contractor's behalf and acknowledge that the State is relying on their representations to that effect. **Principal is not** a recognized title and will not be accepted.

Project Number/Name: _____
 CMS Contract ID No.: _____

<p align="center">CONTRACTOR</p> <p>_____ By: Name & Title of Person Signing for Contractor</p> <p>Date: _____</p>	<p align="center">STATE OF COLORADO Jared S. Polis, Governor</p> <p>_____ By: Name & Title of Person Signing for Agency or IHE</p> <p>Date: _____</p>
<p align="center">DEPARTMENT OF PERSONNEL & ADMINISTRATION STATE BUILDINGS PROGRAM State Architect (or authorized delegate)</p> <p>_____ By: Name & Title of SBP Delegate</p> <p>Date: _____</p>	
<p align="center">In accordance with §24-30-202, C.R.S., this Contract is not valid until signed and dated below by the State Controller (or an authorized delegate) or the Title of IHE CFO per the Fiscal Rules of the individual Institution of Higher Education</p> <p align="center">STATE CONTROLLER Robert Jaros, CPA, MBA, JD</p> <p align="center">By: _____</p> <p align="center">Name of Agency or IHE Delegate-Please delete if contract will be routed to OSC for approval</p> <p align="center">Effective Date: _____</p>	

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD (D/B/B) AGREEMENT
(STATE FORM SC-6.21)**

Department ID: _____ Contract ID #: _____ Project #: _____

1. PARTIES. THIS AGREEMENT is entered into by and between the STATE OF COLORADO, acting by and through the _____ hereinafter referred to as the State or Principal Representative, and _____ having its offices at _____ hereinafter referred to as the Contractor.

2. EFFECTIVE DATE AND NOTICE OF NONLIABILITY. This Agreement shall not be effective or enforceable until it is approved and signed by the State Controller or its designee (hereinafter called the "Effective Date"), but shall be effective and enforceable thereafter in accordance with its provisions. The State shall not be bound by any provision of this Contract before the Effective Date, and shall have no obligation to pay Contractor for any Work performed or expense incurred before the Effective Date.

RECITALS:

WHEREAS, the Principal Representative intends to procure _____ hereinafter called the Project; and

WHEREAS, authority exists in the Law and Funds have been budgeted, appropriated, and otherwise made available, and a sufficient unencumbered balance thereof remains available for payment.

WITNESSETH, that the State of Colorado and the Contractor agree as follows:

1 ARTICLE 1 PERFORMANCE OF THE WORK

The Contractor shall perform all of the Work required for the complete and prompt execution of everything described or shown in, or reasonably implied from the Contract Documents for the above referenced Project.

2 ARTICLE 2 PROVISIONS OF THE CONTRACT DOCUMENTS

The Contractor agrees to perform the Work to the highest industry standards and to the satisfaction of the State of Colorado and its contractor in strict accordance with the provisions of the Contract Documents.

3 ARTICLE 3 TIME OF COMPLETION

The Contractor agrees to Substantially Complete the Project within _____ calendar days from the date of the Notice to Proceed, in addition, the Contractor agrees to finally complete the Project from Substantial Completion to Final Acceptance within _____ calendar days for a total time of

completion of the _____ calendar days. The Contractor shall perform the Work with due diligence to completion.

4 ARTICLE 4 ESSENTIAL CONDITION

Timely completion of the Project is an essential condition of this Agreement. The Contractor shall be subject to any liquidated damages described in Article 7.6 for failure to satisfactorily complete the Work within the time periods in Article 3 above.

5 ARTICLE 5 CONTRACT SUM

The Contractor shall be paid for the performance of this Agreement, subject to any additions and deductions as provided for in Articles 32, 34 and 35 of The General Conditions of the Construction Contract SC-6.23, the sum of _____ DOLLARS AND NO/100 (\$_____).

	Description of Work/Date	Dollar Amount
	Total Contract Sum	\$

6 ARTICLE 6 CONTRACT DOCUMENTS

The Contract Documents, as enumerated in Article 1.1 of The General Conditions of the Contractor’s Design/Bid/Build (D/B/B) Agreement SC-6.23, are all essential parts of this Agreement and are fully incorporated herein.

7 ARTICLE 7 OPTIONAL PROVISIONS AND ELECTIONS

The provisions of this Article 7 alter the Articles (The General Conditions of the Contractor’s Design/Bid/Build Agreement SC-6.23) or enlarge upon them as indicated:

The Principal Representative and or the State Buildings Program shall mark boxes and initial where applicable.

7.1 MODIFICATION OF ARTICLE 2: Execution, Correlation, Intent of Documents, Communication and Cooperation.

If the box below is marked, certification of apprenticeship utilization is required for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical and plumbing work on the project.

_____ Principal Representative initial

7.2 MODIFICATION 1 OF ARTICLE 27: Labor and Wages

If the box is marked, the Federal Davis-Bacon Act shall be applicable to the Project. The minimum wage rates to be paid on the Project shall be furnished by the Principal Representative and included in the Contract Documents.

_____ Principal Representative initial

7.3 MODIFICATION 2 OF ARTICLE 27: Labor and Wages

If the box is marked, the State prevailing wage statute shall be applicable to the Project. The minimum wage rates to be paid on the Project shall be furnished by the Principal Representative and included in the Contract Documents.

_____ Principal Representative initial

7.4 MODIFICATION OF ARTICLE 39: Non-Binding Dispute Resolution – Facilitated Negotiations

If the box is marked, and initialed by the State as noted, the requirement to participate in facilitated negotiations shall be deleted from this Contract. Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, shall be deleted in its entirety and all references to the right to the same where ever they appear in the contract shall be similarly deleted.

The box may be marked only for projects with an estimated value of less than \$500,000.

_____ Principal Representative initial

7.5 MODIFICATION OF ARTICLE 45: Guarantee Inspections After Completion

If the box below is marked the six month guarantee inspection is not required.

_____ Principal Representative initial

7.6 MODIFICATION OF ARTICLE 46: Time of Completion and Liquidated Damages

If an amount is indicated immediately below, liquidated damages shall be applicable to this Project as, and to, the extent shown below. Where an amount is indicated below, liquidated damages shall be assessed in accordance with and pursuant to the terms of The General Conditions of the Design/Bid/Build Agreement Article 46, Time of Completion And Liquidated Damages, in the amounts and as here indicated. The election of liquidated damages shall limit and control the parties right to damages as the State’s sole and exclusive remedy for delay.

7.6.1 Inability To Use The Project

For the inability to use the Project, for each day after the number of calendar days specified in the Contractor’s bid for the Project and the Agreement for achievement of Substantial Completion, until the day that the Project has achieved Substantial Completion and the Notice of Substantial Completion is issued, the Contractor agrees that an amount equal _____ **Dollars (\$_____)**. shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor’s Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due, but amounts remaining are insufficient to cover the entire assessment.

7.6.2 Damages Related to Extended Closeout

For damages related to or arising from additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period, for each day in excess of the number of calendar days specified in the Contractor’s bid for the Project and the Agreement to finally complete the Project as defined by the issuance of the Notice of Final

Acceptance (after the issuance of the final Notice of Substantial Completion), the Contractor agrees that an amount equal to [REDACTED] Dollars (\$ _____). shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor's Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due but amounts remaining are insufficient to cover the entire assessment.

8 ARTICLE 8 NOTICE IDENTIFICATION

All Notices pertaining to General Conditions or otherwise required to be given shall be transmitted in writing, to the individuals at the addresses listed below, and shall be deemed duly given when received by the parties at their addresses below or any subsequent persons or addresses provided to the other party in writing.

NOTICE TO PRINCIPAL REPRESENTATIVE:

Insert Name of Individual acting on the PR behalf
Insert Street Address
City, State Zip Code
Insert email address

With copies to State Buildings Program (or Delegate)

Insert Name of Individual acting on OSA/SBP behalf
Insert Street Address
City, State Zip Code
Insert email address

NOTICE TO CONTRACTOR:

Insert Name of Individual acting on the contractor behalf
Insert Street Address
City, State Zip Code
Insert email address

With copies to:

File

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT A: CONTRACTORS BID

CONTRACTOR'S BID (Form SBP-6.13)

Bid Alternates (Form SBP-6.131)

Unit Pricing (Form SBP-6.133)

Bid Bond (Form SBP-6.14)

Labor Burden Calculation (Form SBP-6.18)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT B: PERFORMANCE BOND

PERFORMANCE BOND (Form SC-6.22)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT C: LABOR AND MATERIAL PAYMENT BOND

LABOR AND MATERIAL PAYMENT BOND (Form SC-6.221)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT D: INSURANCE CERTIFICATE(S)

INSURANCE CERTIFICATE(S) (attached)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT E: BUILDING CODE COMPLIANCE POLICY

**BUILDING CODE COMPLIANCE POLICY: COORDINATION OF APPROVED BUILDING CODES, PLAN REVIEWS
AND BUILDING INSPECTIONS (as applicable)**

Refer to the Office of the State Architect State Buildings Building Codes Webpage *Code Compliance Policy* dated and Exhibit A of the *Code Compliance Policy* dated including the Amendment to Chapter 1 of the International Building Code

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT F: STATE SALES AND USE TAX FORM

STATE SALES AND USE TAX FORM

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

**EXHIBIT G: APPLICABLE PREVAILING WAGE DETERMINATIONS AND APPRENTICESHIP
CONTRIBUTION RATES**

APPLICABLE PREVAILING WAGE DETERMINATIONS AND APPRENTICESHIP CONTRIBUTION RATES

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT H: APPRENTICESHIP UTILIZATION CERTIFICATIONS

APPRENTICESHIP UTILIZATION CERTIFICATIONS

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

SUPPLEMENTARY GENERAL CONDITIONS: FEDERAL PROVISIONS

Supplementary General Conditions Federal Provisions

SLFRF Federal Funds: Contractor Terms and Conditions Certification

SLFRF Federal Funds: Contractor Terms and Conditions

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



COLORADO

**THE GENERAL CONDITIONS OF THE CONTRACTOR'S DESIGN/BID/BUILD (D/B/B)
AGREEMENT**
(STATE FORM SC-6.23)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**THE GENERAL CONDITIONS OF THE CONTRACTOR’S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.23)**

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**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**THE GENERAL CONDITIONS OF THE CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.23)**

1 ARTICLE 1 DEFINITIONS

1.1 CONTRACT DOCUMENTS

The Contract Documents consist of the following some of which are procedural documents used in the administration and performance of the Agreement:

- a) Contractor's Design/Bid/Build Agreement; (SC-6.21);
- b) Performance Bond (SC-6.22) and Labor and Material Payment Bond (SC-6.221);
- c) General Conditions of the Contractor's Design/Bid/Build Agreement (SC- 6.23)
- d) and if applicable, Supplementary General Conditions;
- e) Detailed Specification Requirements, including all addenda issued prior to the opening of the bids; and,
- f) Drawings, including all addenda issued prior to the opening of the bids.
- g) Change Orders (SC-6.31) and Amendments (SC-6.0), if any, when properly executed.
- h) Authorization to Bid (SBP-6.10)
- i) Information for Bidders (SBP-6.12);
- j) Bid (SBP-6.13), Bid Alternates, (SBP-6.131) and Unit Pricing (SBP-6.133) if applicable
- k) Bid Bond (SBP-6.14);
- l) Labor Burden Calculation (SBP-6.18)
- m) Notice of Award (SBP-6.15);
- n) Builder's risk insurance certificates of insurance (ACORD 25-S);
- o) Liability and Workers' compensation certificates of insurance;
- p) Notice to Proceed (Design/Bid/Build) (SBP-6.26);
- q) Notice of Approval of Occupancy/Use (SBP-01);
- r) Notice of Partial Substantial Completion (SBP-071);
- s) Notice of Substantial Completion (SBP-07);
- t) Notice of Partial Final Acceptance (SC-6.27);
- u) Notice of Final Acceptance (SBP-6.271);
- v) Notice of Partial Contractor's Settlement (SC-7.3);
- w) Notice of Contractor's Settlement (SBP-7.31);
- x) Application and Certificate for Contractor's Payment (SBP-7.2);
- y) Other Procedural and Reporting Documents or Forms

Other procedural and reporting documents or forms referred to in the General Conditions, the Supplementary General Conditions, the Specifications or required by the State Buildings Program

or the Principal Representative, including but not necessarily limited to Pre-Acceptance Check List (SBP-05) and the Building Inspection Record (SBP-BIR). A list of the current standard State Buildings Program forms applicable to this Contract may be obtained from the Principal Representative on request.

1.2 DEFINITIONS OF WORDS AND TERMS USED

Agreement

The term "Agreement" shall mean the written agreement entered into by the State of Colorado acting by and through the Principal Representative and the Contractor for the performance of the Work and payment therefore, on State Form SC-6.21. The term Agreement when used without reference to State Form SC-6.21 may also refer to the entirety of the parties' agreement to perform the Work described in the Contract Documents or reasonably inferable there from. The term "Contract" shall be interchangeable with this latter meaning of the term Agreement

Amendment

The term "Amendment" means a written order signed by the Principal Representative or its authorized agent, issued after the execution of this Agreement, authorizing a change in the Work, the method or manner of performance, an adjustment in the Contract Sum, or the Contract Time as required by State Building Program's policy Contract Modification Guidelines.

Architect/Engineer

The term "Architect/Engineer" shall mean either the architect of record or the engineer of record under contract to the State of Colorado for the Project identified in the Contract Documents.

Change Order

The term "Change Order" means a written order directing the Contractor to make changes in the Work, in accordance with Article 35L, The Value of Changed Work.

Colorado Labor

The term "Colorado labor", as provided in C.R.S. § 8-17-101(2)(a), as amended, means any person who is a resident of the state of Colorado, at the time of the public Works project, without discrimination as to race, color, creed, sex, sexual orientation, marital status, national origin, ancestry, age, or religion except when sex or age is a bona fide occupational qualification. A resident of the state of Colorado is a person who can provide a valid Colorado driver's license, a valid Colorado state-issued photo identification, or documentation that he or she has resided in Colorado for the last thirty days.

Contractor

The word "Contractor" shall mean the person, company, firm, corporation or other legal entity entering into a contract with the State of Colorado acting by and through the Principal Representative

Days

The term "days" whether singular or plural shall mean calendar days unless expressly stated otherwise. Where the term "business days" is used it shall mean business days of the State of Colorado.

Drawings

The term "Drawings" shall mean all drawings approved by appropriate State officials which have been prepared by the Architect/Engineer showing the Work to be done, except that where a list of drawings is specifically enumerated in the Supplementary General Conditions or division 1 of

the Specifications, the term shall mean the drawings so enumerated, including all addenda drawings.

Emergency Field Change Order

The term “Emergency Field Change Order” shall mean a written change order for extra Work or a change in the Work necessitated by an emergency as defined in Article 35.4 executed on State form SC 6.31 and identified as an Emergency Field Change Order. The use of such orders is limited to emergencies and to the amounts shown in Article 35.4.

Final Acceptance

The terms “final acceptance” or “finally complete” mean the stage in the progress of the Work, after substantial completion, when all remaining items of Work have been completed, all requirements of the Contract Documents are satisfied and the Notice of Acceptance can be issued. Discrete physical portions of the Project may be separately and partially deemed finally complete at the discretion of the Principal Representative when that portion of the Project reaches such stage of completion and a partial Notice of Acceptance can be issued.

Fixed Limit of Construction Cost

The term “Fixed Limit of Construction Cost” shall set forth a dollar amount available for the total Construction Cost of all elements of the Work as specified by the Principal Representative.

Notice

The term “Notice” shall mean any communication in writing from either contracting party to the other by such means of delivery that receipt cannot properly be denied. Notice shall be provided to the person identified to receive it in Article 8 of the Agreement. Notice Identification, or to such other person as either party identifies in writing to receive Notice Notwithstanding an email delivery or return receipt, email Notice shall not be adequate. Acknowledgment of receipt of a voice message shall not be deemed to waive the requirement that Notice, where required, shall be in writing.

Occupancy

The term “Occupancy” means occupancy taken by the State as Owner after the Date of Substantial Completion at a time when a building or other discrete physical portion of the Project is used for the purpose intended. The Date of Occupancy shall be the date of such first use, but shall not be prior to the date of execution of the Notice of Approval of Occupancy/Use. Prior to the date of execution of a Notice of Approval of Occupancy/Use, the state shall have no right to occupy and the project may not be considered safe for occupancy for the intended use.

Owner

The term “Owner” shall mean the Principal Representative.

Principal Representative

The term “Principal Representative” shall be defined, as provided in C.R.S. § 24-30-1301(14), as the governing board of a state department, institution, or agency; or if there is no governing board, then the executive head of a state department, institution, or agency, as designated by the governor or the general assembly and as specifically identified in the Contract Documents, or shall have such other meaning as the term may otherwise be given in C.R.S. § 24-30-1301(14), as amended. The Principal Representative may delegate authority. The Contractor shall have the right to inquire regarding the delegated authority of any of the Principal Representative’s representatives on the project and shall be provided with a response in writing when requested.

Product Data

The term "Product Data" shall mean all submittals in the form of printed manufacturer's literature, manufacturer's specifications, and catalog cuts.

Project

The "Project" is the total construction of which the Work performed under the Contract Documents is a part, and may include construction by the Principal Representative or by separate contractors.

Reasonably Inferable

The phrase "reasonably inferable" means that if an item or system is either shown or specified, all material and equipment normally furnished with such items or systems and needed to make a complete installation shall be provided whether mentioned or not, omitting only such parts as are specifically excepted, and shall include only components which the Contractor could reasonably anticipate based on his or her skill and knowledge using an objective, industry standard, not a subjective standard. This term takes into consideration the normal understanding that not every detail is to be given on the Drawings and Specifications. If there is a difference of opinion, the Principal Representative shall make the determination as to the standards of what reasonably inferable.

Samples

The term "Samples" shall mean examples of materials or Work provided to establish the standard by which the Work will be judged.

SBP

The term "SBP" means "State Buildings", which is used in connection with labeling applicable State form documents (e.g., "SBP-01" is the form number for Notice of Approval of Occupancy/Use).

SC

The term "SC" means "State Contract" which is used in connection with labeling applicable State form documents (e.g. "SC 6.23" is the State form number for these General Conditions of the Contractor's Design/Bid/Build Agreement).

Schedule of Values

The term "Schedule of Values" is defined as the itemized listing of description of the Work by Division and Section of the Specifications. The format shall be the same as Form SC-7.2. Included shall be the material costs, and the labor and other costs plus the sum of both.

Shop Drawings

The term "Shop Drawings" shall mean any and all detailed drawings prepared and submitted by Contractor, Subcontractor at any tier, vendors or manufacturers providing the products and equipment specified on the Drawings or called for in the Specifications.

Specifications

The term "Specifications" shall mean the requirements of the CSI divisions of the project manual prepared by the Architect/Engineer describing the Work to be accomplished.

State Buildings Program

Shall refer to the Office of the State Architect within the Department of Personnel & Administration of Colorado State government responsible for project administration, review, approval and coordination of plans, construction procurement policy, contractual procedures,

and code compliance and inspection of all buildings, public Works and improvements erected for state purposes; except public roads and highways and projects under the supervision of the division of wildlife and the division of parks and outdoor recreation as provided in C.R.S. § 24-30-1301, *et seq.* The term State Buildings Program shall also mean that individual within a State Department agency or institution, including institutions of higher education, who has signed an agreement accepting delegation to perform all or part of the responsibilities and functions of State Buildings Program.

Subcontractor

The term "Subcontractor" shall mean a person, firm or corporation supplying labor, materials, equipment and/or Services for Work at the site of the Project for, and under separate contract or agreement with the Contractor.

Submittals

The term "submittals" means drawings, lists, tables, documents and samples prepared by the Contractor to facilitate the progress of the Work as required by these General Conditions or the Drawings and Specifications. They consist of Shop Drawings, Product Data, Samples, and various administrative support documents including but not limited to lists of subcontractors, construction progress schedules, schedules of values, applications for payment, inspection and test results, requests for information, various document logs, and as-built drawings. Submittals are required by the Contract Documents, but except to the extent expressly specified otherwise are not themselves a part of the Contract Documents.

Substantial Completion

The terms "substantial completion" or "substantially complete" mean the stage in the progress of the Work when the construction is sufficiently complete, in accordance with the Contract Documents as modified by any Change Orders, so that the Work, or at the discretion of the Principal Representative, any designated portion thereof, is available for its intended use by the Principal Representative and a Notice of Substantial Completion can be issued. Portions of the Project may, at the discretion of the Principal Representative, be designated as substantially complete.

Supplier

The term "Supplier" shall mean any manufacturer, fabricator, distributor, material man or vendor.

Surety

The term "Surety" shall mean the company providing the labor and material payment and performance bonds for the Contractor as obligor.

Value Engineering

"Value Engineering" or "VE" is defined as an analysis and comparison of cost versus value of building materials, equipment, and systems. VE considers the initial cost of construction, coupled with the estimated cost of maintenance, energy use, life expectancy and replacement cost. VE related to this Project shall include the analysis and comparison of building elements in an effort to reduce overall Project costs, while maintaining or enhancing the quality of the design intent, whenever possible.

Work

The term "Work" shall mean all or part of the labor, materials, equipment, and other services required by the Contract Documents or otherwise required to be provided by the Contractor to meet the Contractor's obligations under the Contract.

2 ARTICLE 2 EXECUTION, CORRELATION, INTENT OF DOCUMENTS, COMMUNICATION AND COOPERATION

2.1 EXECUTION

The Contractor, within ten (10) days from the date of Notice of Award, will be required to:

- a) Execute the Agreement, State Form SC-6.21;
- b) Furnish fully executed Performance and Labor and Material Payment Bonds on State Forms SC-6.22 and SC-6.221; and
- c) Furnish certificates of insurance evidencing all required insurance on standard Acord forms designed for such purpose.
- d) Furnish certified copies of any insurance policies requested by the Principal Representative.
- e) If Article 7.1 of the Contractor's Design/Bid/Build Agreement (SC-6.21) applies, furnish documentation that identifies the subcontractors that will be used for all mechanical, sheet metal, fire suppression, sprinkler fitting, electrical, and plumbing work required on the project and certify that that all firms identified participate in apprenticeship programs registered with the United States Department of Labor's Employment and Training Administration or state apprenticeship councils recognized by the United States Department of Labor and have a proven record of graduating a minimum of fifteen percent of its apprentices for at least three of the past five years;

2.2 CORRELATION

By execution of the Agreement the Contractor represents that the Contractor has visited the site, has become familiar with local conditions and local requirements under which the Work is to be performed, including the building code programs of the State Buildings Program as implemented by the Principal Representative, and has correlated personal observations with the requirements of the Contract Documents.

2.3 INTENT OF DOCUMENTS

The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all. The intention of the documents is to include all labor, materials, equipment and transportation necessary for the proper execution of the Work. Words describing materials or Work which have a well-known technical or trade meaning shall be held to refer to such recognized standards.

In any event, if any error exists, or appears to exist, in the requirements of the Drawings or Specifications, or if any disagreement exists as to such requirements, the Contractor shall have the same explained or adjusted by the Architect/Engineer before proceeding with the Work in question. In the event of the Contractor's failure to give prior written Notice of any such errors or disagreements of which the Contractor or the Subcontractors at any tier are aware, the Contractor shall, at no additional cost to the Principal Representative, make good any damage to, or defect in, Work which is caused by such omission.

Where a conflict occurs between or within standards, Specifications or Drawings, which is not resolved by reference to the precedence between the Contract Documents, the more stringent or higher quality requirements shall apply so long as such more stringent or higher quality requirements are reasonably inferable. The Architect/Engineer shall decide which requirements will provide the best installation.

With the exception noted in the following paragraph, the precedence of the Contract Documents is in the following sequence:

- a) The Supplementary General Conditions, if any;
- b) The Colorado Special Provisions, Article 11 of this Agreement (State Form SC-5.1);
- c) The Agreement (SC-6.21);
- d) The General Conditions (SC-6.23); and
- e) Drawings and Specifications, all as modified by any addenda.

Change Orders and Amendments, if any, to the Contract Documents take precedence over the original Contract Documents.

Notwithstanding the foregoing order of precedence, the Special Provisions of Article 52 of the General Conditions, Special Provisions, shall take precedence, rule and control over all other provisions of the Contract Documents.

Unless the context otherwise requires, form numbers in this document are for convenience only. In the event of any conflict between the form required by name or context and the form required by number, the form required by name or context shall control. The Contractor may obtain State forms from the Principal Representative upon request.

2.4 PARTNERING, COMMUNICATIONS AND COOPERATION

In recognition of the fact that conflicts, disagreements and disputes often arise during the performance of construction contracts, the Contractor and the Principal Representative aspire to encourage a relationship of open communication and cooperation between the employees and personnel of both, in which the objectives of the Contract may be better achieved and issues resolved in a more fully informed atmosphere.

The Contractor and the Principal Representative each agree to assign an individual who shall be fully authorized to negotiate and implement a voluntary partnering plan for the purpose of facilitating open communications between them. Within thirty days (30) of the Notice to Proceed, the assigned individuals shall meet to discuss development of an informal agreement to accomplish these goals.

The assigned individuals shall endeavor to reach an informal agreement, but shall have no such obligation. Any plans these parties voluntarily agree to implement shall result in no change to the contract amount, and no costs associated with such plan or its development shall be recoverable under any contract clause. In addition, no plan developed to facilitate open communication and cooperation shall alter, amend or waive any of the rights or duties of either party under the Contract unless and except by written Amendment to the Contract, nor shall anything in this clause or any subsequently developed partnering plan be deemed to create fiduciary duties between the parties unless expressly agreed in a written Amendment to the Contract. It is also recognized that projects with relatively low contract values may not justify the expense or special efforts required. In the case of small projects with an initial Contract value under \$500,000, the requirements of the preceding paragraph shall not apply.

3 ARTICLE 3 COPIES FURNISHED

The Contractor will be furnished, free of charge, the number of copies of Drawings and Specifications as specified in the Contract Documents, or if no number is specified, all copies reasonably necessary for the execution of the Work.

4 ARTICLE 4 OWNERSHIP OF DRAWINGS

Drawings or Specifications, or copies of either, furnished by the Architect/Engineer, are not to be used on any other Work. At the completion of the Work, at the written request of the Architect/Engineer, the Contractor shall endeavor to return all Drawings and Specifications.

The Contractor may retain the Contractor's Contract Document set, copies of Drawings and Specifications used to contract with others for any portion of the Work and a marked up set of as-built drawings.

5 ARTICLE 5 ARCHITECT/ENGINEER'S STATUS

The Architect/Engineer is the representative of the Principal Representative for purposes of administration of the Contract, as provided in the Contract Documents and the Agreement. In case of termination of employment or the death of the Architect/Engineer, the Principal Representative will appoint a capable Architect/Engineer against whom the Contractor makes no reasonable objection, whose status under the Contract shall be the same as that of the former Architect/Engineer.

6 ARTICLE 6 ARCHITECT/ENGINEER DECISIONS AND JUDGMENTS, ACCESS TO WORK AND INSPECTION

6.1 DECISIONS

The Architect/Engineer shall, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work or the interpretation of the Contract Documents, and in the exercise of due diligence shall be reasonably available to the Contractor to timely interpret and make decisions with respect to questions relating to the design or concerning the Contract Documents.

6.2 JUDGMENTS

The Architect/Engineer is, in the first instance, the judge of the performance required by the Contract Documents as it relates to compliance with the Drawings and Specifications and quality of Workmanship and materials.

The Architect/Engineer shall make judgments regarding whether directed Work is extra or outside the scope of Work required by the Contract Documents at the time such direction is first given. If, in the Contractor's judgment, any performance directed by the Architect/Engineer is not required by the Contract Documents or if the Architect/Engineer does not make the judgment required, it shall be a condition precedent to the filing of any claim for additional cost related to such directed Work that the Contractor, before performing such Work, shall first obtain in writing, the

Architect/Engineer's written decision that such directed Work is included in the performance required by the Contract Documents. If the Architect/Engineer's direction to perform the Work does not state that the Work is within the performance required by the Contract Documents, the Contractor shall, in writing, request the Architect/Engineer to advise in writing whether the directed Work will be considered extra Work or Work included in the performance required by the Contract Documents.

The Architect/Engineer shall respond to any such written request for such a decision within three (3) business days and if no response is provided, or if the Architect/Engineer's written decision is to the effect that the Work is included in the performance required by the Contract Documents, the Contractor may file with the Principal Representative and the Architect/Engineer a Notice of claim in accordance with Article 36, Claims. Whether or not a Notice of claim is filed, the Contractor shall proceed with the ordered Work. Disagreement with the decision of the Architect/Engineer shall not be grounds for the Contractor to refuse to perform the Work directed or to suspend or terminate performance.

6.3 ACCESS TO WORK

The Architect/Engineer, the Principal Representative and representatives of State Buildings Program shall at all times have access to the Work. The Contractor shall provide proper facilities for such access and for their observations or inspection of the Work.

6.4 INSPECTION

The Architect/Engineer has agreed to make, or that structural, mechanical, electrical engineers or other consultants will make, periodic visits to the site to generally observe the progress and quality of the Work to determine in general if the Work is proceeding in accordance with the Contract Documents. Observation may extend to all or any part of the Work and to the preparation, fabrication or manufacture of materials.

Without in any way meaning to be exclusive or to limit the responsibilities of the Architect/Engineer or the Contractor, the Architect/Engineer has agreed to observe, among other aspects of the Work, the following for compliance with the Contract Documents:

- a) Compaction testing reports based upon the findings and recommendations of the Principal Representative's testing consultant;
- b) Bearing surfaces of excavations before concrete is placed based upon the findings and recommendations of the Principal Representative's soils engineering consultant;
- c) Reinforcing steel after installation and before concrete is poured;
- d) Structural concrete;
- e) Laboratory reports on all concrete testing based upon the findings and recommendations of the Principal Representative's testing consultant;
- f) Structural steel during and after erection and prior to its being covered or enclosed;
- g) Steel welding; Principal Representative will furnish steel welding inspection consultant/agency if required or necessary for the project;
- h) Mechanical and plumbing Work following its installation and prior to its being covered or enclosed;
- i) Electrical Work following its installation and prior to its being covered or enclosed; and
- j) Any special or quality control testing required in the Contract Documents provided by the Principal Representative's testing consultant.

If the Specifications, the Architect/Engineer's instructions, laws, ordinances of any public authority require any Work to be specifically tested or approved, the Contractor shall give the Principal Representative, Architect/Engineer and appropriate testing agency (if necessary) timely notice of its readiness for observation by the Architect/Engineer or inspection by another authority, and if the inspection is by another authority, of the date fixed for such inspection, required certificates of inspection being secured by the Contractor. The Contractor shall give all required Notices to the Principal Representative or his or her designee for inspections required for the building inspection program. It shall be the responsibility of the Contractor to determine the Notice required by the State pursuant to Building Inspection Record for the Project, according to State form SBP-B.I.R., or the equivalent form required by the Principal Representative as approved by the State Buildings Program. If any portion of the Work should be covered contrary to the reasonable request of the Architect/Engineer, or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect/Engineer, be uncovered for its observation and shall be replaced at the Contractor's expense.

If any other portion of the Work has been covered which the Architect/Engineer has not specifically requested to observe prior to its being covered, it may request to see such work and it shall be uncovered by the Contractor. If such work is found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Amendment or Change Order, be charged to the Principal Representative. If such work is found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it is found that this condition was caused by the Principal Representative or a separate Contractor as provided in Article 18, in which event, the Principal Representative shall be responsible for the payment of such costs.

7 ARTICLE 7 CONTRACTOR'S SUPERINTENDENCE AND SUPERVISION

The Contractor shall employ, and keep present (as applicable) on the Project during its progress, a competent project manager as satisfactory to the Principal Representative. The project manager shall not be changed except with the consent of the Principal Representative, unless the project manager proves to be unsatisfactory to the Contractor and ceases to be in his or her employ. The project manager shall represent the Contractor for the Project, and in the absence of the Contractor, all directions given to the project manager shall be as binding as if given to the Contractor. Directions received by the project manager shall be documented by the project manager and communicated in writing with the Contractor.

The Contractor shall employ, and keep present on the Project during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Architect/Engineer and the Principal Representative. The superintendent shall not be changed except with the consent of the Architect/Engineer and the Principal Representative, unless the superintendent proves to be unsatisfactory to the Project Manager/Contractor and ceases to be in his or her employ. The superintendent shall represent the Project Manager/Contractor in his or her absence and all directions given to the superintendent shall be as binding as if given to the Project Manager/Contractor. Directions received by the superintendent shall be documented by the superintendent and confirmed in writing with the Project Manager/Contractor.

The Contractor shall give efficient supervision to the Work, using his or her best skill and attention. He or she shall carefully study and compare all Drawings, Specifications and other written instructions and shall without delay report any error, inconsistency or omission which he or she

may discover in writing to the Architect/Engineer. The Contractor shall not be liable to the Principal Representative for damage to the extent it results from errors or deficiencies in the Contract Documents or other instructions by the Architect/Engineer, unless the Contractor knew or had reason to know, that damage would result by proceeding and the Contractor fails to so advise the Architect/Engineer.

The superintendent shall see that the Work is carried out in accordance with the Contract Documents and in a uniform, thorough and first-class manner in every respect. The Contractor's superintendent shall establish all lines, levels, and marks necessary to facilitate the operations of all concerned in the Contractor's Work. The Contractor shall lay out all Work in a manner satisfactory to the Architect/Engineer, making permanent records of all lines and levels required for excavation, grading, foundations, and for all other parts of the Work.

8 ARTICLE 8 MATERIALS AND EMPLOYEES

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the Work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be first class and of uniform quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor is fully responsible for all acts and omissions of the Contractor's employees and shall at all times enforce strict discipline and good order among employees on the site. The Contractor shall not employ on the Work any person reasonably deemed unfit by the Principal Representative or anyone not skilled in the Work assigned to him.

9 ARTICLE 9 SURVEYS, PERMITS, LAWS, TAXES AND REGULATIONS

9.1 SURVEYS

The Principal Representative shall furnish all surveys, property lines and bench marks deemed necessary by the Architect/Engineer, unless otherwise specified.

9.2 PERMITS AND LICENSES

Permits and licenses necessary for the prosecution of the Work shall be secured and paid for by the Contractor. Unless otherwise specified in the Specifications, no local municipal or county building permit shall be required. However, State Buildings Program requires each Principal Representative to administer a building code inspection program, the implementation of which may vary at each agency or institution of the State. The Contractors' employees shall become personally familiar with these local conditions and requirements and shall fully comply with such requirements. State electrical and plumbing permits are required, unless the requirement to obtain such permits is altered by State Building's Programs. The Contractor shall obtain and pay for such permits.

Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Principal Representative, unless otherwise specified.

9.3 TAXES

9.3.1 Refund of Sales and Use Taxes

The Contractor shall pay all local taxes required to be paid, including but not necessarily limited to all sales and use taxes. If requested by the Principal Representative prior to issuance of the Notice to Proceed or directed in the Supplementary General Conditions or the Specifications, the Contractor shall maintain records of such payments in respect to the Work, which shall be separate and distinct from all other records maintained by the Contractor, and the Contractor shall furnish such data as may be necessary to enable the State of Colorado, acting by and through the Principal Representative, to obtain any refunds of such taxes which may be available under the laws, ordinances, rules or regulations applicable to such taxes. When so requested or directed, the Contractor shall require Subcontractors at all tiers to pay all local sales and use taxes required to be paid and to maintain records and furnish the Contractor with such data as may be necessary to obtain refunds of the taxes paid by such Subcontractors. No State sales and use taxes are to be paid on material to be used in this Project. On application by the purchaser or seller, the Department of Revenue shall issue to a Contractor or to a Subcontractor at any tier, a certificate or certificates of exemption per C.R.S. § 39-26-703(2)(b), and C.R.S. § 39-26-708.

9.3.2 Federal Taxes

The Contractor shall exclude the amount of any applicable federal excise or manufacturers' taxes from the proposal. The Principal Representative will furnish the Contractor, on request exemption certificates.

9.4 LAWS AND REGULATIONS

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work as drawn or specified. If the Contractor observes that the Drawings or Specifications require Work, which is at variance therewith, the Contractor shall, without delay, notify the Architect/Engineer in writing and any necessary changes shall be adjusted as provided in Article 35, Changes In The Work.

The Contractor shall bear all costs arising from the performance of Work required by the Drawings or Specifications that the Contractor knows to be contrary to such laws, ordinances, rules or regulations, if such Work is performed without giving Notice to the Architect/Engineer.

10 ARTICLE 10 PROTECTION OF WORK AND PROPERTY

10.1 GENERAL PROVISIONS

The Contractor shall continuously maintain adequate protection of all Work and materials, protect the property from injury or loss arising in connection with this Contract and adequately protect adjacent property as provided by law and the Contract Documents. The Contractor shall make good any damage, injury or loss, except to the extent:

- a) Directly due to errors in the Contract Documents;
- b) Caused by agents or employees of the Principal Representative; and,
- c) Due to causes beyond the Contractor's control and not to fault or negligence; provided such damage, injury or loss would not be covered by the insurance required to be carried by the Contractor;

10.2 SAFETY PRECAUTIONS

The Contractor shall take all necessary precautions for the safety of employees on the Project, and shall comply with all applicable provisions of federal, State and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. He or she shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of Workers and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and he or she shall designate a responsible member of his or her organization on the Project, whose duty shall be the prevention of accidents. The name and position of any person so designated shall be reported to the Architect/Engineer by the Contractor.

The Contractor shall provide all necessary bracing, shoring and tying of all structures, decks and framing to prevent any structural failure of any material which could result in damage to property or the injury or death of persons; take all precautions to insure that no part of any structure of any description is loaded beyond its carrying capacity with anything that will endanger its safety at any time during the execution of this Contract; and provide for the adequacy and safety of all scaffolding and hoisting equipment. The Contractor shall not permit open fires within the building enclosure. The Contractor shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavations and floors, pits and trenches free of water. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, except as otherwise noted.

The Contractor shall take due precautions when obstructing sidewalks, streets or other public ways in any manner, and shall provide, erect and maintain barricades, temporary walkways, roadways, trench covers, colored lights or danger signals and any other devices necessary or required to assure the safe passage of pedestrians and automobiles.

10.3 EMERGENCIES

In an emergency affecting the safety of life or of the Work or of adjoining property, the Contractor without special instruction or authorization from the Architect/Engineer or Principal Representative, is hereby permitted to act, at his or her discretion, to prevent such threatened loss or injury; and he or she shall so act, without appeal, if so authorized or instructed. Provided the Contractor has no responsibilities for the emergency, if the Contractor incurs additional cost not otherwise recoverable from insurance or others on account of any such emergency Work, the Contract sum shall be equitably adjusted in accordance with Article 35, Changes In The Work.

11 ARTICLE 11 DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep on the job site one copy of the Contract Documents in good order, including current copies of all Drawings and Specifications for the Work, and any approved Shop Drawings, Product Data or Samples, and as-built drawings. As-built drawings shall be updated weekly by the Contractor and Subcontractors to reflect actual constructed conditions including dimensioned locations of underground Work and the Contractor's failure to maintain such updates may be grounds to withhold portions of payments otherwise due in accordance with Article 33, Payments Withheld. All such documents shall be available to the Architect/Engineer

and representatives of the State. In addition, the Contractor shall keep on the job site one copy of all approved addenda, Change Orders and requests for information issued for the Work.

The Contractor shall develop procedures to insure the currency and accuracy of as-built drawings and shall maintain on a current basis a log of requests for information and responses thereto, a Shop Drawing and Product Data submittal log, and a Sample submittal log to record the status of all necessary and required submittals.

12 ARTICLE 12 REQUESTS FOR INFORMATION AND SCHEDULES

12.1 REQUESTS FOR INFORMATION

The Architect/Engineer shall furnish additional instructions with reasonable promptness, by means of drawings or otherwise, necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from. The Architect/Engineer shall determine what additional instructions or drawings are necessary for the proper execution of the Work.

The Work shall be executed in conformity with such instructions and the Contractor shall do no Work without proper drawings, specifications or instructions. If the Contractor believes additional instructions, specifications or drawings are needed for the performance of any portion of the Work, the Contractor shall give Notice of such need in writing through a request for information furnished to the Architect/Engineer sufficiently in advance of the need for such additional instructions, specifications or drawings to avoid delay and to allow the Architect/Engineer a reasonable time to respond. The Contractor shall maintain a log of the requests for information and the responses provided.

12.2 SCHEDULES

12.2.1 Submittal Schedules

Prior to filing the Contractor's first application for payment, a schedule shall be prepared which may be preliminary to the extent required, fixing the dates for the submission and initial review of required Shop Drawings, Product Data and Samples for the beginning of manufacture and installation of materials, and for the completion of the various parts of the Work. It shall be prepared so as to cause no delay in the Work or in the Work of any other contractor. The schedule shall be subject to change from time to time in accordance with the progress of the Work, and it shall be subject to the review and approval by the Architect/Engineer. It shall fix the dates at which the various Shop Drawings Product Data and Samples will be required from the Architect/Engineer. The Architect/Engineer, after review and agreement as to the time provided for initial review, shall review and comment on the Shop Drawings, Product Data and Samples in accordance with that schedule. The schedule shall be finalized, prepared and submitted with respect to each of the elements of the Work in time to avoid delay, considering reasonable periods for review, manufacture or installation.

At the time the schedule is prepared, the Contractor, the Architect/Engineer and Principal Representative shall jointly identify the Shop Drawing, Product Data and Samples, if any, which the Principal Representative shall receive simultaneously with the Architect/Engineer for the purposes of owner coordination with existing facility standards and systems. The Contractor shall furnish a copy for the Principal Representative when so requested. Transmittal of Shop Drawings and Product Data copies to the Principal Representative shall be solely for the convenience of the

Principal Representative and shall neither create nor imply responsibility or duty of review by the Principal Representative.

The Contractor may also, or at the direction of the Principal Representative at any time shall, prepare and maintain a schedule, which may also be preliminary and subject to change to the extent required, fixing the dates for the initial responses to requests for information or for detail drawings which will be required from the Architect/Engineer to allow the beginning of manufacture, installation of materials and for the completion of the various parts of the Work. The schedule shall be subject to review and approval by the Architect/Engineer. The Architect/Engineer shall, after review and agreement, furnish responses and detail drawings in accordance with that schedule. Any such schedule shall be prepared and approved in time to avoid delay, considering reasonable periods for review, manufacture or installation, but so long as the request for information schedule is being maintained, it shall not be deemed to transfer responsibility to the Contractor for errors or omissions in the Contract Documents where circumstances make timely review and performance impossible.

The Architect/Engineer shall not unreasonably withhold approval of the Contractor's schedules and shall inform the Contractor and the Principal Representative of the basis of any refusal to agree to the Contractor's schedules. The Principal Representative shall attempt to resolve any disagreements.

12.2.2 Schedule of Values

Within twenty-one (21) calendar days after the date of the Notice to Proceed, the Contractor shall submit to the Architect/Engineer and Principal Representative, for approval, and to the State Buildings Program when specifically requested, a complete itemized schedule of the values of the various parts of the Work, as estimated by the Contractor, aggregating the total price. The schedule of values shall be in such detail as the Architect/Engineer or the Principal Representative shall require, prepared on forms acceptable to the Principal Representative. It shall, at a minimum, identify on a separate line each division of the Specifications including the general conditions costs to be charged to the Project. The Contractor shall revise and resubmit the schedule of values for approval when, in the opinion of the Architect/Engineer or the Principal Representative, such resubmittal is required due to changes or modifications to the Contract Documents or the Contract sum.

The total cost of each line item so separately identified shall, when requested by the Architect/Engineer or the Principal Representative, be broken down into reasonable estimates of the value of:

- a) Material, which shall include the cost of material actually built into the Project plus any local sales or use tax paid thereon; and,
- b) Labor and other costs.

The cost of subcontracts shall be incorporated in the Contractor's schedule of values, and when requested by the Architect/Engineer or the Principal Representative, shall be separately shown as line items.

The Architect/Engineer shall review the proposed schedules and approve it after consultation with the Principal Representative, or advise the Contractor of any required revisions within ten (10) days of its receipt. In the event no action is taken on the submittal within ten days, the Contractor may utilize the schedule of values as its submittal for payment until it is approved or until revisions are requested.

When the Architect/Engineer deems it appropriate to facilitate certification of the amounts due to the Contractor, further breakdown of subcontracts, including breakdown by labor and materials, may be directed.

This schedule of values, when approved, will be used in preparing Contractor's applications for payment on State Form SC-7.2, Application for Payment.

12.2.3 Construction Schedules

Within twenty-one (21) calendar days after the date of the Notice to Proceed, the Contractor shall submit to the Architect/Engineer and the Principal Representative, and to the State Buildings Program when specifically requested, on a form acceptable to them, an overall timetable of the construction schedule for the Project. Unless the Supplementary General Conditions or the Specifications allow scheduling with bar charts or other less sophisticated scheduling tools, the Contractor's schedule shall be a critical-path method (CPM) construction schedule. The CPM schedule shall start with the date of the Notice to Proceed and include submittals activities, the various construction activities, change order Work (when applicable), close-out, testing, demonstration of equipment operation when called for in the Specifications, and acceptance. The CPM schedule shall at a minimum correlate to the schedule of values line items and shall be cost loaded if requested by the Architect/Engineer or Principal Representative. The completion time shall be the time specified in the Agreement and all Project scheduling shall allocate float utilizing the full period available for construction as specified in the Agreement on State Form SC 6.13, without indication of early completion, unless such earlier completion is approved in writing by the Principal Representative and State Building Programs.

The time shown between the starting and completion dates of the various elements within the construction schedule shall represent one hundred per cent (100%) completion of each element.

All other elements of the CPM schedule shall be as required by the Specifications. In addition, the Contractor shall submit monthly updates or more frequently, if required by the Principal Representative, updates of the construction schedule. These updates shall reflect the Contractor's "Work in place" progress.

When requested by the Architect/Engineer, the Principal Representative or the State Buildings Program, the Contractor shall revise the construction schedule to reflect changes in the schedule of values.

When the testing of materials is required by the Specifications, the Contractor shall also prepare and submit to the Architect/Engineer and the Principal Representative a schedule for testing in accordance with Article 14, Samples and Testing.

13 ARTICLE 13 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

13.1 SUBMITTAL PROCESS

The Contractor shall check and field verify all dimensions. The Contractor shall check, approve and submit to the Architect/Engineer in accordance with the schedule described in Article 12, Requests for Information and Schedules, all Shop Drawings, Product Data and Samples required by the specifications or required by the Contractor for the Work of the various trades. All Drawings and Product Data shall contain identifying nomenclature and each submittal shall be accompanied by a letter of transmittal identifying in detail all enclosures. The number of copies

of Shop Drawings and Product Data to be submitted shall be as specified in the Specifications and if no number is specified then three copies shall be submitted.

The Architect/Engineer shall review and comment on the Shop Drawings and Product Data within the time provided in the agreed upon schedule for conformance with information given and the design concept expressed in, or reasonably inferred from, the Contract Documents. The nature of all corrections to be made to the Shop Drawings and Product Data, if any, shall be clearly noted, and the submittals shall be returned to the Contractor for such corrections. If a change in the scope of the Work is intended by revisions requested to any Shop Drawings and Product Data, the Contractor shall be requested to prepare a change proposal in accordance with Article 35, Changes In The Work. On resubmitted Shop Drawings, Product Data or Samples, the Contractor shall direct specific attention in writing on the transmittal cover to revisions other than those corrections requested by the Architect/Engineer on any previously checked submittal. The Architect/Engineer shall promptly review and comment on, and return, the resubmitted items.

The Contractor shall thereafter furnish such other copies in the form approved by the Architect/Engineer as may be needed for the prosecution of the Work.

13.2 FABRICATION AND ORDERING

Fabrication shall be started by the Contractor only after receiving approved Shop Drawings from the Architect/Engineer. Materials shall be ordered in accordance with approved Product Data. Work which is improperly fabricated, whether through incorrect Shop Drawings, faulty workmanship or materials, will not be acceptable.

13.3 DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS

The review and comments of the Architect/Engineer of Shop Drawings, Product Data or Samples shall not relieve the Contractor from responsibility for deviations from the Drawings or Specifications, unless he or she has in writing called the attention of the Architect/Engineer to such deviations at the time of submission, nor shall it relieve the Contractor from responsibility for errors of any sort in Shop Drawings or Product Data. Review and comments on Shop Drawings or Product Data containing identified deviations from the Contract Documents shall not be the basis for a Change Order or a claim based on a change in the scope of the Work unless Notice is given to the Architect/Engineer and Principal Representative of all additional costs, time and other impacts of the identified deviation by bring it to their attention in writing at the time the submittals are made, and any subsequent change in the Contract sum or the Contract time shall be limited to cost, time and impacts so identified.

13.4 CONTRACTOR REPRESENTATIONS

By preparing, approving, and/or submitting Shop Drawings, Product Data and Samples, the Contractor represents that the Contractor has determined and verified all materials, field measurements, and field construction criteria related thereto, and has checked and coordinated the information contained within each submittal with the requirements of the Work, the Project and the Contract Documents and prior reviews and approvals.

14 ARTICLE 14 SAMPLES AND TESTING

14.1 SAMPLES

The Contractor shall furnish for approval, with such promptness as to cause no delay in his or her Work or in that of any other Contractor, all Samples as directed by the Architect/Engineer. The Architect/Engineer shall check and approve such Samples, with reasonable promptness, but only for conformance with the design intent of the Contract Documents and the Project, and for compliance with any submission requirements given in the Contract Documents.

14.2 TESTING - GENERAL

The Contractor shall provide such equipment and facilities as the Architect/Engineer may require for conducting field tests and for collecting and forwarding samples to be tested. Samples themselves shall not be incorporated into the Work after approval without the permission of the Architect/Engineer.

All materials or equipment proposed to be used may be tested at any time during their preparation or use. The Contractor shall furnish the required samples without charge and shall give sufficient Notice of the placing of orders to permit the testing thereof. Products may be sampled either prior to shipment or after being received at the site of the Work.

Tests shall be made by an accredited testing laboratory. Except as otherwise provided in the Specifications, sampling and testing of all materials, and the laboratory methods and testing equipment, shall be in accordance with the latest standards and tentative methods of the American Society of Testing Materials (ASTM). The cost of testing which is in addition to the requirements of the Specifications shall be paid by the Contractor if so directed by the Architect/Engineer, and the Contract sum shall be adjusted accordingly by Change Order; provided however, that whenever testing shows portions of the Work to be deficient, all costs of testing including that required to verify the adequacy of repair or replacement Work shall be the responsibility of the Contractor.

14.3 TESTING - CONCRETE AND SOILS

Unless otherwise specified or provided elsewhere in the Contract Documents, the Principal Representative will contract for and pay for the testing of concrete and for soils compaction testing through an independent laboratory or laboratories selected and approved by the Principal Representative. The Contractor shall assume the responsibility of arranging, scheduling and coordinating the concrete sample collection efforts and soils compaction efforts in an efficient and cost effective manner. Testing shall be performed in accordance with the requirements of the Specifications, and if no requirements are specified, the Contractor shall request instructions and testing shall be as directed by the Architect/Engineer or the soils engineer, as applicable, and in accordance with standard industry practices.

The Principal Representative and the Architect/Engineer shall be given reasonable advance notice of each concrete pour and reserve the right to either increase or decrease the number of cylinders or the frequency of tests.

Soil compaction testing shall be at random locations selected by the soils engineer. In general, soils compaction testing shall be as directed by the soils engineer and shall include all substrate prior to backfill or construction.

14.4 TESTING - OTHER

Additional testing required by the Specifications will be accomplished and paid for by the Principal Representative in a manner similar to that for concrete and soils unless noted otherwise in the Specifications. In any case, the Contractor will be responsible for arranging, scheduling and coordinating additional tests. Where the additional testing will be contracted and paid for by the Principal Representative the Contractor shall give the Principal Representative not less than one-month advance written Notice of the date the first such test will be required.

15 ARTICLE 15 SUBCONTRACTS

15.1 CONTRACT PERFORMANCE OUTSIDE OF THE UNITED STATES OR COLORADO

After the contract is awarded, Contractor is required to provide written notice to the Principal Representative no later than twenty (20) days after deciding to perform services under this contract outside the United States or Colorado or to subcontract services under this contract to a subcontractor that will perform such services outside the United States or Colorado. The written notification must include, but need not be limited to, a statement of the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform the services. All notices received by the State pursuant to outsourced services shall be posted on the Colorado Department of Personnel & Administration's website. If Contractor knowingly fails to notify the Principal Representative of any outsourced services as specified herein, the Principal Representative, at its discretion, may terminate this contract as provided in the Colorado Procurement Code or the applicable procurement code for institutions of higher education (Does not apply to any project that receives federal moneys)

15.2 SUBCONTRACTOR LIST

Prior to the Notice to Proceed to commence construction, the Contractor shall submit to the Architect/Engineer, the Principal Representative and State Buildings Program a preliminary list of Subcontractors. It shall be as complete as possible at the time, showing all known Subcontractors planned for the Work. The list shall be supplemented as other Subcontractors are determined by the Contractor and any such supplemental list shall be submitted to the Architect/Engineer, the Principal Representative and State Buildings Program not less than ten (10) days before the Subcontractor commences Work.

15.3 SUBCONTRACTOR SUBSTITUTIONS

The Contractor's list shall include those Subcontractors, if any, which the Contractor indicated in its bid, would be employed for specific portions of the Work if such indication was requested in the bid documents issued by the State. The substitution of any Subcontractor listed in the Contractor's bid shall be justified in writing not less than ten (10) days after the date of the Notice to Proceed to commence construction, and shall be subject to the approval of the Principal Representative. For reasons such as the Subcontractor's refusal to perform as agreed, subsequent unavailability or later discovered bid errors, or other similar reasons, but not including the availability of a lower Subcontract price, such substitution may be approved. The Contractor shall bear any additional cost incurred by such substitutions.

15.4 CONTRACTOR RESPONSIBLE FOR SUBCONTRACTORS

The Contractor shall not employ any Subcontractor that the Architect/Engineer, within ten (10) days after the date of receipt of the Contractor's list of Subcontractors or any supplemental list, objects to in writing as being unacceptable to either the Architect/Engineer, the Principal Representative or State Buildings Program. If a Subcontractor is deemed unacceptable, the Contractor shall propose a substitute Subcontractor and the Contract sum shall be adjusted by any demonstrated difference between the Subcontractor's bids, except where the Subcontractor has been debarred by the State or fails to meet qualifications of the Contract Documents to perform the Work proposed.

The Contractor shall be fully responsible to the Principal Representative for the acts and omissions of Subcontractors and of persons either directly or indirectly employed by them. All instructions or orders in respect to Work to be done by Subcontractors shall be given to the Contractor.

16 ARTICLE 16 RELATIONS OF CONTRACTOR AND SUBCONTRACTOR

The Contractor agrees to bind each Subcontractor to the terms of these General Conditions and to the requirements of the Drawings and Specifications, and any Addenda thereto, and also all the other Contract Documents, so far as applicable to the Work of such Subcontractor. The Contractor further agrees to bind each Subcontractor to those terms of the General Conditions which expressly require that Subcontractors also be bound, including without limitation, requirements that Subcontractors waive all rights of subrogation, provide adequate general commercial liability and property insurance, automobile insurance and workers' compensation insurance as provided in Article 25, Insurance.

Nothing contained in the Contract Documents shall be deemed to create any contractual relationship whatsoever between any Subcontractor and the State of Colorado acting by and through its Principal Representative.

17 ARTICLE 17 MUTUAL RESPONSIBILITY OF CONTRACTORS

Should the Contractor cause damage to any separate contractor on the Work, the Contractor agrees, upon due Notice, to settle with such contractor by agreement, if he or she will so settle. If such separate contractor sues the Principal Representative on account of any damage alleged to have been so sustained, the Principal Representative shall notify the Contractor, who shall defend such proceedings if requested to do so by Principal Representative. If any judgment against the Principal Representative arises there from, the Contractor shall pay or satisfy it and pay all costs and reasonable attorney fees incurred by the Principal Representative, in accordance with Article 53.8, Indemnification, provided the Contractor was given due Notice of an opportunity to settle.

18 ARTICLE 18 SEPARATE CONTRACTS

The Principal Representative reserves the right to enter into other contracts in connection with the Project or the Contract. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall

properly connect and coordinate his or her Work with theirs. If any part of the Contractor's Work depends, for proper execution or results, upon the Work of any other contractor, the Contractor shall inspect and promptly report to the Architect/Engineer any defects in such Work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other contractor's Work as fit and proper for the reception of Work, except as to defects which may develop in the other Contractor's Work after the execution of the Contractor's Work.

To insure the proper execution of subsequent Work, the Contractor shall measure Work already in place and shall at once report to the Architect/Engineer any discrepancy between the executed Work and the Drawings.

19 ARTICLE 19 USE OF PREMISES

The Contractor shall confine apparatus, the storage of materials and the operations of workmen to limits indicated by law, ordinances, permits and any limits lines shown on the Drawings. The Contractor shall not unreasonably encumber the premises with materials.

The Contractor shall enforce all of the Architect/Engineer's instructions and prohibitions regarding, without limitation, such matters as signs, advertisements, fires and smoking.

20 ARTICLE 20 CUTTING, FITTING OR PATCHING

The Contractor shall do all cutting, fitting or patching of Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of other Contractors shown upon, or reasonably inferred from, the Drawings and Specifications for the complete structure, and shall provide for such finishes to patched or fitted Work as the Architect/Engineer may direct. The Contractor shall not endanger any Work by cutting, excavating or otherwise altering the Work and shall not cut or alter the Work of any other Contractor save with the consent of the Architect/Engineer.

21 ARTICLE 21 UTILITIES

21.1 TEMPORARY UTILITIES

Unless otherwise specifically stated in the Specifications or on the Drawings, the Principal Representative shall be responsible for the locations of all utilities as shown on the Drawings or indicated elsewhere in the Specifications, subject to the Contractor's compliance with all statutory or regulatory requirements to call for utility locates. When actual conditions deviate from those shown the Contractor shall comply with the requirements of Article 37, Differing Site Conditions. The Contractor shall provide and pay for the installation of all temporary utilities required to supply all the power, light and water needed by him and other Contractors for their Work and shall install and maintain all such utilities in such manner as to protect the public and Workmen and conform with any applicable laws and regulations. Upon completion of the Work, he or she shall remove all such temporary utilities from the site. The Contractor shall pay for all consumption of power, light and water used by him or her and the other Contractors, without regard to whether such items are metered by temporary or permanent meters. The

Superintendent shall have full authority over all trades and Subcontractors at any tier to prevent waste. The cut-off date on permanent meters shall be either the agreed date of the date of the Notice of Substantial Completion or the Notice of Approval of Occupancy/Use of the Project.

21.2 PROTECTION OF EXISTING UTILITIES

Where existing utilities, such as water mains, sanitary sewers, storm sewers and electrical conduits, are shown on the Drawings, the Contractor shall be responsible for the protection thereof, without regard to whether any such utilities are to be relocated or removed as a part of the Work. If any utilities are to be moved, the moving must be conducted in such manner as not to cause undue interruption or delay in the operation of the same.

21.3 CROSSING OF UTILITIES

When new construction crosses highways, railroads, streets, or utilities under the jurisdiction of State, city or other public agency, public utility or private entity, the Contractor shall secure proper written permission before executing such new construction. The Contractor will be required to furnish a proper release before final acceptance of the Work.

22 ARTICLE 22 UNSUITABLE CONDITIONS

The Contractor shall not Work at any time, or permit any Work to be done, under any conditions contrary to those recommended by manufacturers or industry standards which are otherwise proper, unsuited for proper execution, safety and performance. Any cost caused by ill-timed Work shall be borne by the Contractor unless the timing of such Work shall have been directed by the Architect/Engineer or the Principal Representative, after the award of the Contract, and the Contractor provided Notice of any additional cost.

23 ARTICLE 23 TEMPORARY FACILITIES

23.1 OFFICE FACILITIES

The Contractor shall provide and maintain without additional expense for the duration of the Project temporary office facilities, as required and as specified, for its own use and the use of the Architect/Engineer, representatives of the Principal Representative and State Buildings Program.

23.2 TEMPORARY HEAT

The Contractor shall furnish and pay for all the labor, facilities, equipment, fuel and power necessary to supply temporary heating, ventilating and air conditioning, except to the extent otherwise specified, and shall be responsible for the installation, operation, maintenance and removal of such facilities and equipment. Unless otherwise specified, the permanent HVAC system shall not be used for temporary heat in whole or in part. If the Contractor desires to put the permanent system into use, in whole or in part, the Contractor shall set it into operation and furnish the necessary fuel and manpower to safely operate, protect and maintain that HVAC system. Any operation of all or any part of the permanent HVAC system including operation for testing purposes shall not constitute acceptance of the system, nor shall it relieve the Contractor of his or her one-year guarantee of the system from the date of the Notice of Substantial Completion of the entire Project, and if necessary due to prior operation, the Contractor shall

provide manufacturers' extended warranties from the date of the Contractor's use prior to the date of the Notice of Substantial Completion.

23.3 WEATHER PROTECTION

The Contractor shall, at all times, provide protection against weather, so as to maintain all Work, materials, apparatus and fixtures free from injury or damages.

23.4 DUST PARTITIONS

If the Work involves Work in an occupied existing building, the Contractor shall erect and maintain during the progress of the Work, suitable dust-proof temporary partitions, or more permanent partitions as specified, to protect such building and the occupants thereof.

23.5 BENCH MARKS

The Contractor shall maintain any site bench marks provided by the Principal Representative and shall establish any additional benchmarks specified by the Architect/Engineer as necessary for the Contractor to layout the Work and ascertain all grades and levels as needed.

23.6 SIGN

The Contractor shall erect and permit one 4' x 8' sign only at the site to identify the Project as specified or directed by the Architect/Engineer which shall be maintained in good condition during the life of the Project.

23.7 SANITARY PROVISION

The Contractor shall provide and maintain suitable, clean, temporary sanitary toilet facilities for any and all workmen engaged on the Work, for the entire construction period, in strict compliance with the requirement of all applicable codes, regulations, laws and ordinances, and no other facilities, new or existing, may be used by any person on the Project. When the Project is complete the Contractor shall promptly remove them from the site, disinfect, and clean or treat the areas as required. If any new construction surfaces in the Project other than the toilet facilities provided for herein are soiled at any time, the entire areas so soiled shall be completely removed from the Project and rebuilt. In no event may present toilet facilities of any existing building at the site of the Work be used by employees of any contractor.

24 ARTICLE 24 CLEANING UP

The Contractor shall keep the building and premises free from all surplus material, waste material, dirt and rubbish caused by employees or Work, and at the completion of the Work shall remove all such surplus material, waste material, dirt, and rubbish, as well as all tools, equipment and scaffolding, and shall wash and clean all window glass and plumbing fixtures, perform cleanup and cleaning required by the Specifications and leave all of the Work clean unless more exact requirements are specified.

25 ARTICLE 25 INSURANCE

25.1 GENERAL

The Contractor shall procure and maintain all insurance requirements and limits as set forth below, at his or her own expense, for the length of time set forth in Contract requirements. The Contractor shall continue to provide evidence of such coverage to State of Colorado on an annual basis during the aforementioned period including all of the terms of the insurance and indemnification requirements of this agreement. All below insurance policies shall include a provision preventing cancellation without thirty (30) days' prior notice by certified mail. A completed Certificate of Insurance shall be filed with the Principal Representative and State Buildings Program within ten (10) days after the date of the Notice of Award, said Certificate to specifically state the inclusion of the coverages and provisions set forth herein and shall state whether the coverage is "claims made" or "per occurrence".

25.2 COMMERCIAL GENERAL LIABILITY INSURANCE (CGL)

This insurance must protect the Contractor from all claims for bodily injury, including death and all claims for destruction of or damage to property (other than the Work itself), arising out of or in connection with any operations under this Contract, whether such operations be by the Contractor or by any Subcontractor under him or anyone directly or indirectly employed by the Contractor or by a Subcontractor. All such insurance shall be written with limits and coverages as specified below and shall be written on an occurrence form.

General Aggregate	\$2,000,000
Products – Completed Operations Aggregate	\$2,000,000
Each Occurrence	\$1,000,000
Personal Injury	\$1,000,000

The following coverages shall be included in the CGL:

- a) Per project general aggregate (CG 25 03 or similar)
- b) Additional Insured status in favor of the State of Colorado and any other parties as outlined in The Contract and must include both ONGOING Operations AND COMPLETED Operations per CG2010 10/01 and CG 2037 10/01 or equivalent as permitted by law.
- c) The policy shall be endorsed to be **primary and non-contributory** with any insurance maintained by Additional Insureds.
- d) A waiver of Subrogation in favor of all Additional Insured parties.
- e) Personal Injury Liability
- f) Contractual Liability coverage to support indemnification obligation per Article 53.8
- g) Explosion, collapse and underground (xcu)

The following exclusionary endorsements are prohibited in the CGL policy:

- a) Damage to Work performed by Subcontract/Vendor (CG 22-94 or similar)
- b) Contractual Liability Coverage Exclusion modifying or deleting the definition of an "insured contract" from the unaltered SO CG 0001 1001 policy from (CG 24 26 or similar)
- c) If applicable to the Work to be performed: Residential or multi-family
- d) If applicable to the Work to be performed: Exterior insulation finish systems
- e) If applicable to the Work to be performed: Subsidence or Earth Movement

The Contractor shall maintain general liability coverage including Products and Completed Operations insurance, and the Additional Insured with primary and non-contributory coverage as specified in this Contract for three (3) years after completion of the project.

25.3 AUTOMOBILE LIABILITY INSURANCE

Automobile and business auto liability covering liability arising out of any auto (including owned, hired and non-owned autos).

Combined Bodily Injury and Property Damage Liability (Combined Single Limit):	\$1,000,000 each accident
Coverages:	Specific waiver of subrogation

25.4 WORKERS' COMPENSATION INSURANCE

The Contractor shall procure and maintain Workers' Compensation Insurance at his or her own expense during the life of this Contract, including occupational disease provisions for all employees per statutory requirements. Policy shall contain a waiver of subrogation in favor of the State of Colorado.

The Contractor shall also require each Subcontractor to furnish Workers' Compensation Insurance, including occupational disease provisions for all of the latter's employees, and to the extent not furnished, the Contractor accepts full liability and responsibility for Subcontractor's employees.

In cases where any class of employees engaged in hazardous Work under this Contract at the site of the Project is not protected under the Workers' Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise protected.

25.5 UMBRELLA LIABILITY INSURANCE

(For construction projects exceeding \$10,000,000, provide the following coverage)

The Contractor shall maintain umbrella/excess liability insurance on an occurrence basis in excess of the underlying insurance described in Section B-D above. Coverage shall follow the terms of the underlying insurance, included the additional insured and waiver of subrogation provisions. The amounts of insurance required in Sections above may be satisfied by the Contractor purchasing coverage for the limits specified or by any combination of underlying and umbrella limits, so long as the total amount of insurance is not less than the limits specified in each section previously mentioned.

Each occurrence	\$5,000,000
Aggregate	\$5,000,000

25.6 BUILDER'S RISK INSURANCE

Unless otherwise expressly stated in the Supplementary General Conditions (e.g. where the State elects to provide for projects with a completed value of less than \$1,000,000), the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent

Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property, or the Date of Notice specified on the Notice of Acceptance, State Form SBP-6.27 or whichever is later.

This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project as named insureds.

All associated deductibles shall be the responsibility of the Contractor. Such policy may have a deductible clause but not to exceed ten thousand dollars (\$10,000.00).

Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false Work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

Contractor shall maintain Builders Risk coverage including partial use by Owner.

The Contractor shall waive all rights of subrogation as regards the State of Colorado and the Principal Representative, its officials, its officers, its agents and its employees, all while acting within the scope and course of their employment for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section or other property insurance applicable to the Work. The Contractor shall require all Subcontractors at any tier to similarly waive all such rights of subrogation and shall expressly include such a waiver in all subcontracts.

Upon request, the amount of such insurance shall be increased to include the cost of any additional Work to be done on the Project, or materials or equipment to be incorporated in the Project, under other independent contracts let or to be let. In such event, the Contractor shall be reimbursed for this cost as his or her share of the insurance in the same ratio as the ratio of the insurance represented by such independent contracts let or to be let to the total insurance carried.

The Principal Representative, with approval of the State Controller, shall have the power to adjust and settle any loss. Unless it is agreed otherwise, all monies received shall be applied first on rebuilding or repairing the destroyed or injured Work.

25.7 POLLUTION LIABILITY INSURANCE

If Contractor is providing directly or indirectly Work with pollution/environmental hazards, the Contractor must provide or cause those conducting the Work to provide Pollution Liability Insurance coverage. Pollution Liability policy must include contractual liability coverage. State of Colorado must be included as additional insureds on the policy. The policy limits shall be in the amount of \$1,000,000 with maximum deductible of \$25,000 to be paid by the Subcontractor/Vendor.

25.8 ADDITIONAL MISCELLANEOUS INSURANCE PROVISIONS

Certificates of Insurance and/or insurance policies required under this Contract shall be subject to the following stipulations and additional requirements:

- a) Any and all deductibles or self-insured retentions contained in any Insurance policy shall be assumed by and at the sole risk of the Contractor;
- b) If any of the said policies shall fail at any time to meet the requirements of the Contract Documents as to form or substance, or if a company issuing any such policy shall be or at any time cease to be approved by the Division of Insurance of the State of Colorado, or be or cease to be in compliance with any stricter requirements of the Contract Documents, the Contractor shall promptly obtain a new policy, submit the same to the Principal Representative and State Building Programs for approval if requested, and submit a Certificate of Insurance as hereinbefore provided. Upon failure of the Contractor to furnish, deliver and maintain such insurance as provided herein, this Contract, in the sole discretion of the State of Colorado, may be immediately declared suspended, discontinued, or terminated. Failure of the Contractor in obtaining and/or maintaining any required insurance shall not relieve the Contractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification;
- c) All requisite insurance shall be obtained from financially responsible insurance companies, authorized to do business in the State of Colorado and acceptable to the Principal Representative;
- d) Receipt, review or acceptance by the Principal Representative of any insurance policies or certificates of insurance required by this Contract shall not be construed as a waiver or relieve the Contractor from its obligation to meet the insurance requirements contained in these General Conditions.

26 ARTICLE 26 CONTRACTOR'S PERFORMANCE AND PAYMENT BONDS

The Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond on State Forms SC-6.22, Performance Bond, and SC-6.221, Labor and Material Payment Bond, or such other forms as State Buildings Program may approve for the Project, executed by a corporate Surety authorized to do business in the State of Colorado and in the full amount of the Contract sum. The expense of these bonds shall be borne by the Contractor and the bonds shall be filed with State Buildings Program.

If, at any time, a Surety on such a bond is found to be, or ceases to be in strict compliance with any qualification requirements of the Contract Documents or the bid documents, or loses its right to do business in the State of Colorado, another Surety will be required, which the Contractor shall furnish to State Buildings Program within ten (10) days after receipt of Notice from the State or after the Contractor otherwise becomes aware of such conditions.

27 ARTICLE 27 LABOR AND WAGES

27.1 COLORADO LABOR

In accordance with laws of Colorado, C.R.S. § 8-17-101(1), as amended, Colorado labor shall be employed to perform at least eighty percent of the Work.

27.2 PREVAILING WAGE RATES

In accordance with laws of Colorado, C.R.S. § 24-92 Part 2, if prevailing wage rates are applicable to this project:

- a) The contractor shall in conspicuous places on the project post an owner provided poster with the current prevailing rate of payments as provided in the project solicitation.
 1. A contractor who fails to comply shall be deemed guilty of a class 3 misdemeanor and shall pay the State one hundred dollars (\$100) for each calendar day of noncompliance as determined by the State.
- b) The contractor and any subcontractors shall pay all the employees employed directly on the site of the work, unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment computed at wage rates not less than those stated in the competitive solicitation, regardless of any contractual relationships that may be alleged to exist between the contractor or subcontractor and the employees.
- c) The contractor and any subcontractors shall prepare and submit electronic payroll reports to the State in a format approved by OSA on a monthly basis that disclose all relevant payroll information, including the name and address of any entities to which fringe benefits are paid.
- d) The contractor and any subcontractors shall maintain on the site where public projects are being constructed a daily log of employees employed each day on the public project. The log shall include, at a minimum, for each employee his or her name, primary job title, and employer, and shall be kept on a form prescribed by the director. The log shall be available for inspection on the site at all times by the State.
- e) If the contractor or any subcontractor fails to pay wages as are required by the contract, the State shall not approve a warrant or demand for payment to the contractor until the contractor furnishes the State evidence satisfactory to such agency of government that such wages have been paid; except that the State shall approve and pay any portion of a warrant or demand for payment to the contractor to the extent the State has been furnished satisfactory evidence that the contractor or one or more subcontractors has paid such wages required by the contract, The contractor or subcontractor may use the following procedure in order to satisfy the requirements of this section:
 1. The contractor or subcontractor may submit to the State, for each employee to whom such wages are due, a check payable to that employee or to the State so it is negotiable by either party. Each such check shall be in an amount representing the difference between the accrued wages required to be paid to that employee by the contract and the wages actually paid by the contractor or subcontractor.
 2. If any check submitted cannot be delivered to the employee within a reasonable period, then it shall be negotiated by the State and the proceeds deposited in the unclaimed property trust fund created in section 38-13-116.6. Nothing in this subsection (1) shall be construed to lessen the responsibility of the contractor or subcontractor to attempt to locate and pay any employee to whom wages are due.

28 ARTICLE 28 ROYALTIES AND PATENTS

The Contractor shall be responsible for assuring that all rights to use of products and systems have been properly arranged and shall take such action as may be necessary to avoid delay, at no

additional charge to the Principal Representative, where such right is challenged during the course of the Work. The Contractor shall pay all royalties and license fees required to be paid and shall defend all suits or claims for infringement of any patent rights and shall save the State of Colorado harmless from loss on account thereof, in accordance with Article 53.8, Indemnification; provided, however, the Contractor shall not be responsible for such loss or defense for any copyright violations contained in the Contract Documents prepared by the Architect/Engineer or the Principal Representative of which the Contractor is unaware, or for any patent violations based on specified processes that the Contractor is unaware are patented or that the Contractor should not have had reason to believe were patented.

29 ARTICLE 29 ASSIGNMENT

Except as otherwise provided hereafter the Contractor shall not assign the whole or any part of this Contract without the written consent of the Principal Representative. This provision shall not be construed to prohibit assignments of the right to payment to the extent permitted by C.R.S. § 4-9-406, et. seq., as amended, provided that written Notice of Assignment adequate to identify the rights assigned is received by the Principal Representative and the controller for the agency, department, or institution executing this Contract (as distinguished from the State Controller). Such assignment of the right to payment shall not be deemed valid until receipt by the Principal Representative and such controller and the Contractor assumes the risk that such written Notice of assignment is received by the Principal Representative and the controller for the agency, department, or institution involved. In case the Contractor assigns all or part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to all claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract, whether said service or materials were supplied prior to or after the assignment. Nothing in this Article shall be deemed a waiver of any other defenses available to the State against the Contractor or the assignee.

30 ARTICLE 30 CORRECTION OF WORK BEFORE ACCEPTANCE

The Contractor shall promptly remove from the premises all Work or materials condemned or declared irreparably defective as failing to conform to the Contract Documents on receipt of written Notice from the Architect/Engineer or the Principal Representative, whether incorporated in the Work or not. If such materials shall have been incorporated in the Work, or if any unsatisfactory Work is discovered, the Contractor shall promptly replace and re-execute his or her Work in accordance with the requirements of the Contract Documents without expense to the Principal Representative, and shall also bear the expense of making good all Work of other contractors destroyed or damaged by the removal or replacement of such defective material or Work.

Should any defective Work or material be discovered during the process of construction, or should reasonable doubt arise as to whether certain material or Work is in accordance with the Contract Documents, the value of such defective or questionable material or Work shall not be included in any application for payment, or if previously included, shall be deducted by the Architect/Engineer from the next application submitted by the Contractor.

If the Contractor does not perform repair, correction and replacement of defective Work, in lieu of proceeding by issuance of a Notice of intent to remove condemned Work as outlined above, the Principal Representative may, not less than seven (7) days after giving the original written Notice of the need to repair, correct, or replace defective Work, deduct all costs and expenses of replacement or correction as instructed by the Architect/Engineer from the Contractor's next application for payment in addition to the value of the defective Work or material. The Principal Representative may also make an equitable deduction from the Contract sum by unilateral Change Order, in accordance with Article 33, Payments Withheld and Article 35, Changes In The Work.

If the Contractor does not remove such condemned or irreparably defective Work or material within a reasonable time, the Principal Representative may, after giving a second seven (7) day advance Notice to the Contractor and the Surety, remove them and may store the material at the Contractor's expense. The Principal Representative may accomplish the removal and replacement with its own forces or with another Contractor. If the Contractor does not pay the expense of such removal and pay all storage charges within ten (10) days thereafter, the Principal Representative may, upon ten (10) days' written Notice, sell such material at auction or at private sale and account for the net proceeds thereof, after deducting all costs and expenses which should have been borne by the Contractor. If the Contractor shall commence and diligently pursue such removal and replacement before the expiration of the seven-day period, or if the Contractor shall show good cause in conjunction with submittal of a revised CPM schedule showing when the Work will be performed and why such removal of condemned Work should be scheduled for a later date, the Principal Representative shall not proceed to remove or replace the condemned Work.

If the Contractor disagrees with the Notice to remove Work or materials condemned or declared irreparably defective, the Contractor may request facilitated negotiation of the issue and the Principal Representative's right to proceed with removal and to deduct costs and expenses of repair shall be suspended and tolled until such time as the parties meet and negotiate the issue

During construction, whenever the Architect/Engineer has advised the Contractor in writing, in the Specifications, by reference to Article 6, Architect/Engineer Decisions and Judgments, of these General Conditions or elsewhere in the Contract Documents of a need to observe materials in place prior to their being permanently covered up, it shall be the Contractor's responsibility to notify the Architect/Engineer at least forty-eight (48) hours in advance of such covering operation. If the Contractor fails to provide such notification, Contractor shall, at his or her expense, uncover such portions of the Work as required by the Architect/Engineer for observation, and reinstall such covering after observation. When a covering operation is continued from day to day, notification of the commencement of a single continuing covering operation shall suffice for the activity specified so long as it proceeds regularly and without interruption from day to day, in which event the Contractor shall coordinate with the Architect/Engineer regarding the continuing covering operation.

31 ARTICLE 31 APPLICATIONS FOR PAYMENTS

31.1 CONTRACTOR'S SUBMITTALS

On or before the first day of each month and no more than five days prior thereto, the Contractor may submit applications for payment for the Work performed during such month covering the portion of the Work completed as of the date indicated, and payments on account of this Contract

shall be due per C.R.S. § 24-30-202(24) (correct notice of amount due), within forty-five (45) days of receipt by the Principal Representative of application for payments that have been certified by the Architect/Engineer. The Contractor shall submit the application for payment to the Architect/Engineer on State forms SBP-7.2, Certificate for Contractor's Payment, or such other format as the State Buildings Program shall approve, in an itemized format in accordance with the schedule of values or a cost loaded CPM schedule when required, supported to the extent reasonably required by the Architect/Engineer or the Principal Representative by receipts or other vouchers, showing payments for materials and labor, prior payments and payments to be made to Subcontractors and such other evidence of the Contractor's right to payments as the Architect/Engineer or Principal Representative may direct.

If payments are made on account of materials not incorporated in the Work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedure as will establish the Principal Representative's title to such material or otherwise adequately protect the Principal Representative's interests, and shall provide proof of insurance whenever requested by the Principal Representative or the Architect/Engineer, and shall be subject to the right to inspect the materials at the request of either the Architect/Engineer or the Principal Representative.

All applications for payment, except the final application, and the payments there under, shall be subject to correction in the next application rendered following the discovery of any error.

31.2 ARCHITECT/ENGINEER CERTIFICATION

In accordance with the Architect/Engineer's agreement with the Principal Representative, the Architect/Engineer after appropriate observation of the progress of the Work shall certify to the Principal Representative the amount that the Contractor is entitled to, and forward the application to the Principal Representative. If the Architect/Engineer certifies an amount different from the amount requested or otherwise alters the Contractor's application for payment, a copy shall be forwarded to the Contractor.

If the Architect/Engineer is unable to certify all or portions of the amount requested due to the absence or lack of required supporting evidence, the Architect/Engineer shall advise the Contractor of the deficiency. If the deficiency is not corrected at the end of ten (10) days, the Architect/Engineer may either certify the remaining amounts properly supported to which the Contractor is entitled, or return the application for payment to the Contractor for revision with a written explanation as to why it could not be certified.

31.3 RETAINAGE WITHHELD

Unless otherwise provided in the Supplementary General Conditions, an amount equivalent to five percent (5%) of the amount shown to be due the Contractor on each application for payment shall be withheld until the Work required by the Contract has been performed. The withheld percentage of the contract price of any such Work, improvement, or construction shall be administered according to C.R.S. § 24-91-103, as amended, and C.R.S. § 38-26-107, as amended, and Article 31.4, shall be retained until the Work or discrete portions of the Work, have been completed satisfactorily, finally or partially accepted, and advertised for final settlement as further provided in Article 41.

31.4 RELEASE OF RETAINAGE

The Contractor may, for satisfactory and substantial reasons shown to the Principal Representative's satisfaction, make a written request to the Principal Representative and the

Architect/Engineer for release of part or all of the withheld percentage applicable to the Work of a Subcontractor which has completed the subcontracted Work in a manner finally acceptable to the Architect/Engineer, the Contractor, and the Principal Representative. Any such request shall be supported by a written approval from the Surety furnishing the Contractor's bonds and any surety that has provided a bond for the Subcontractor. The release of any such withheld percentage shall be further supported by such other evidence as the Architect/Engineer or the Principal Representative may require, including but not limited to, evidence of prior payments made to the Subcontractor, copies of the Subcontractor's contract with the Contractor, any applicable warranties, as-built information, maintenance manuals and other customary close-out documentation. Neither the Principal Representative nor the Architect Engineer shall be obligated to review such documentation nor shall they be deemed to assume any obligations to third parties by any review undertaken.

The Contractor's obligation under these General Conditions to guarantee Work for one year from the date of the Notice of Substantial Completion or the date of any Notice of Partial Substantial Completion of the applicable portion or phase of the Project, shall be unaffected by such partial release; unless a Notice of Partial Substantial Completion is issued for the Work subject to the release of retainage.

Any rights of the Principal Representative which might be terminated by or from the date of any final acceptance of the Work, whether at common law or by the terms of this Contract, shall not be affected by such partial release of retainage prior to any final acceptance of the entire Project.

The Contractor remains fully responsible for the Subcontractor's Work and assumes any risk that might arise by virtue of the partial release to the Subcontractor of the withheld percentage, including the risk that the Subcontractor may not have fully paid for all materials, labor and equipment furnished to the Project.

If the Principal Representative considers the Contractor's request for such release satisfactory and supported by substantial reasons, the Architect/Engineer shall make a "final inspection" of the applicable portion of the Project to determine whether the Subcontractor's Work has been completed in accordance with the Contract Documents. A final punch list shall be made for the Subcontractor's Work and the procedures of Article 41, Completion, Final Inspection, Acceptance and Settlement, shall be followed for that portion of the Work, except that advertisement of the intent to make final payment to the Subcontractor shall be required only if the Principal Representative has reason to believe that a supplier or Subcontractor to the Subcontractor for which the request is made, may not have been fully paid for all labor and materials furnished to the Project.

32 ARTICLE 32 CERTIFICATES FOR PAYMENTS

State Form SBP-7.2, Certificate For Contractor's Payment, and its continuation detail sheets, when submitted, shall constitute the Certificate of Contractor's Application for Payment, and shall be a representation by the Contractor to the Principal Representative that the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and materials for which payment is requested have been incorporated into the Project except as noted in the application. If requested by the Principal Representative the Certificate of Contractor's Application for Payment shall be sworn under oath and notarized.

33 ARTICLE 33 PAYMENTS WITHHELD

The Architect/Engineer, the Principal Representative or State Buildings Program may withhold, or on account of subsequently discovered evidence nullify, the whole or any part of any application on account of, but not limited to any of the following:

- a) Defective Work not remedied;
- b) Claims filed or reasonable evidence indicating probable filing of claims;
- c) Failure of the Contractor to make payments to Subcontractors for material or labor;
- d) A reasonable doubt that the Contract can be completed for the balance of the contract price then unpaid;
- e) Damage or injury to another contractor or any other person, persons or property except to the extent of coverage by a policy of insurance;
- f) Failure to obtain necessary permits or licenses or to comply with applicable laws, ordinances, codes, rules or regulations or the directions of the Architect/Engineer;
- g) Failure to submit a monthly construction schedule;
- h) Failure of the Contractor to keep Work progressing in accordance with the time schedule;
- i) Failure to keep a superintendent on the Work;
- j) Failure to maintain as built drawings of the Work in progress;
- k) Unauthorized deviations by the Contractor from the Contract Documents; or
- l) On account of liquidated damages.

In addition, the Architect Engineer, Principal Representative or State Buildings Program may withhold or nullify the whole or any part of any application for any reason noted elsewhere in these General Conditions of the Contractor's Design/Bid/Build Agreement. Nullification shall mean reduction of amounts shown as previously paid on the application. The amount withheld or nullified may be in such amount as the Architect/Engineer or the Principal Representative estimates to be required to allow the State to accomplish the Work, cure the failure and cover any damages or injuries, including an allowance for attorneys' fees and costs where appropriate. When the grounds for such withholding or nullifying are removed, payment shall be made for the amounts thus withheld or nullified on such grounds.

34 ARTICLE 34 DEDUCTIONS FOR UNCORRECTED WORK

If the Architect/Engineer and the Principal Representative deem it inexpedient to correct Work damaged or not performed in accordance with the Contract Documents, the Principal Representative may, after consultation with the Architect/Engineer and ten (10) days' Notice to the Contractor of intent to do so, make reasonable reductions from the amounts otherwise due the Contractor on the next application for payment. Notice shall specify the amount or terms of any contemplated reduction. The Contractor may during this period correct or perform the Work. If the Contractor does not correct or perform the Work, an equitable deduction from the Contract sum shall be made by Change Order, in accordance with Article 35, Changes in The Work, unilaterally if necessary. If either party elects' facilitation of this issue after Notice is given, the ten-day (10) notice period shall be extended and tolled until facilitation has occurred.

35 ARTICLE 35 CHANGES IN THE WORK

The Principal Representative may designate, without invalidating the Agreement, and with the approval of State Buildings Program and the State Controller, may order extra Work or make changes with or without the consent of the Contractor as hereafter provided, by altering, adding to or deducting from the Work, the Contract sum being adjusted accordingly. All such changes in the Work shall be within the general scope of and be executed under the conditions of the Contract, except that any claim for extension of time made necessary due to the change or any claim of other delay or other impacts caused by or resulting from the change in the Work shall be presented by the Contractor and adjusted by Change Order to the extent known at the time such change is ordered and before proceeding with the extra or changed Work. Any claims for extension of time or of delay or other impacts, and any costs associated with extension of time, delay or other impacts, which are not presented before proceeding with the change in the Work, and which are not adjusted by Change Order to the extent known, shall be waived.

The Architect/Engineer shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the intent of the Contract Documents, but otherwise, except in an emergency endangering life or property, no extra Work or change in the Contract Documents shall be made unless by 1) a written Change Order, approved by the Principal Representative, State Buildings Program, and the State Controller prior to proceeding with the changed Work; or 2) by an Emergency Field Change Order approved by the Principal Representative and State Buildings Program as hereafter provided in Article 35.4 Emergency Field Ordered Changed Work; or 3) by an allocation in writing of any allowance already provided in the encumbered contract amount, the Contract sum being later adjusted to decrease the Contract sum by any unallocated or unexpended amounts remaining in such allowance. No change to the Contract sum shall be valid unless so ordered.

35.1 THE VALUE OF CHANGED WORK

The value of any extra Work or changes in the Work shall be determined by agreement in one or more of the following ways:

- a) By estimate and acceptance of a lump-sum amount;
- b) By unit prices specified in the Agreement, or subsequently agreed upon, that are extended by specific quantities;
- c) By actual cost plus a fixed fee in a lump sum amount for profit, overhead and all indirect and off-site home office costs, the latter amount agreed upon in writing prior to starting the extra or changed Work.

Where the Contractor and the Principal Representative cannot agree on the value of extra Work, the Principal Representative may order the Contractor to perform the changes in the Work and a Change Order may be unilaterally issued based on an estimate of the change in the Work prepared by the Architect/Engineer. The value of the change in the Work shall be the Principal Representative's determination of the amount of equitable adjustment attributable to the extra Work or change. The Principal Representative's determination shall be subject to appeal by the Contractor pursuant to the claims process in Article 36, Claims.

Except as otherwise provided in Article 35.2, Detailed Breakdown, the Cost Principles of the Colorado Procurement Code or the applicable procurement code for institutions of higher education, shall govern all Contract changes.

35.2 DETAILED BREAKDOWN

In all cases where the value of the extra or changed Work is not known based on unit prices in the Contractor's bid or the Agreement, a detailed change proposal shall be submitted by the Contractor on a Change Order Proposal (SC-6.312), or in such other format as the State Buildings Program approves, with which the Principal Representative may require an itemized list of materials, equipment and labor, indicating quantities, time and cost for completion of the changed Work.

Such detailed change proposals shall be stated in lump sum amounts and shall be supported by a separate breakdown, which shall include estimates of all or part of the following when requested by the Architect/Engineer or the Principal Representative:

- a) Materials, indicating quantities and unit prices including taxes and delivery costs if any (separated where appropriate into general, mechanical and electrical and/or other Subcontractors' Work; and the Principal Representative may require in its discretion any significant subcontract costs to be similarly and separately broken down).
- b) Labor costs, indicating hourly rates and time and labor burden to include Social Security and other payroll taxes such as unemployment, benefits and other customary burdens.
- c) Costs of project management time and superintendence time of personnel stationed at the site, and other field supervision time, but only where a time extension, other than a weather delay, is approved as part of the Change Order, and only where such project management time and superintendence time is directly attributable to and required by the change; provided however that additional cost of on-site superintendence shall be allowable whenever in the opinion of the Architect/Engineer the impact of multiple change requests to be concurrently performed will result in inadequate levels of supervision to assure a proper result unless additional superintendence is provided.
- d) Construction equipment (including small tools). Expenses for equipment and fuel shall be based on customary commercially reasonable rental rates and schedules. Equipment and hand tool costs shall not include the cost of items customarily owned by workers.
- e) Workers' compensation costs, if not included in labor burden.
- f) The cost of commercial general liability and property damage insurance premiums but only to the extent charged the Contractor as a result of the changed Work.
- g) Overhead and profit, as hereafter specified.
- h) Builder's risk insurance premium costs.
- i) Bond premium costs.
- j) Testing costs not otherwise excluded by these General Conditions.
- k) Subcontract costs.

Unless modified in the Supplementary General Conditions, overhead and profit shall not exceed the percentages set forth in the table below.

	OVERHEAD	PROFIT	COMMISSION
To the Contractor or to Subcontractors for the portion of Work performed with their own forces:	10%	5%	0%
To the Contractor or to Subcontractors for Work performed by others at a tier immediately below either of them:	5%	0%	5%

Overhead shall include: a) insurance premium for policies not purchased for the Project and itemized above, b) home office costs for office management, administrative and supervisory personnel and assistants, c) estimating and change order preparation costs, d) incidental job burdens, e) legal costs, f) data processing costs, g) interest costs on capital, h) general office expenses except those attributable to increased rental expenses for temporary facilities, and all other indirect costs, but shall not include the Social Security tax and other direct labor burdens. The term "Work" as used in the proceeding table shall include labor, materials and equipment and the "Commission" shall include all costs and profit for carrying the subcontracted Work at the tiers below except direct costs as listed in items 1 through 11 above if any.

On proposals for Work involving both additions and credits in the amount of the Contract sum, the overhead and profit will be allowed on the net increase only. On proposals resulting in a net deduct to the amount of the Contract sum, profit on the deducted amount shall be returned to the Principal Representative at fifty percent (50%) of the rate specified. The inadequacy of the profit specified shall not be a basis for refusal to submit a proposal.

Except in the case of Change Orders or Emergency Field Change Orders agreed to on the basis of a lump sum amount or unit prices as described in paragraphs 35.1a and 35.2a above, The Value of Changed Work, the Contractor shall keep and present a correct and fully auditable account of the several items of cost, together with vouchers, receipts, time cards and other proof of costs incurred, summarized on a Change Order form (SC-6.31) using such format for supporting documentation as the Principal Representative and State Buildings Program approve. This requirement applies equally to Work done by Subcontractors. Only auditable costs shall be reimbursable on Change Orders where the value is determined on the basis of actual cost plus a fixed fee pursuant to paragraph 35A3 above, or where unilaterally determined by the Principal Representative on the basis of an equitable adjustment in accordance with the Procurement Rules, as described above in Article 35.1, The Value of Changed Work.

Except for proposals for Work involving both additions and credits, changed Work shall be adjusted and considered separately for Work either added or omitted. The amount of adjustment for Work omitted shall be estimated at the time it is directed to be omitted, and when reasonable to do so, the agreed adjustment shall be reflected on the schedule of values used for the next Contractor's application for payment.

The Principal Representative reserves the right to contract with any person or firm other than the Contractor for any or all extra Work; however, unless specifically required in the Contract Documents, the Contractor shall have no responsibility without additional compensation to

supervise or coordinate the Work of persons or firms separately contracted by the Principal Representative.

35.3 HAZARDOUS MATERIALS

The Principal Representative represents that it has undertaken an examination of the site of the Work and has determined that there are no hazardous substances, as defined below, which the Contractor could reasonably encounter in its performance of the Work. In the event the Principal Representative so discovers hazardous substances, the Principal Representative shall render harmless such hazards before the Contractor commences the Work.

In the event the Contractor encounters any materials reasonably believed to be hazardous substances which have not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Principal Representative, in writing. For purposes of this Agreement, "hazardous substances" shall include asbestos, lead, polychlorinated biphenyl (PCB) and any or all of those substances defined as "hazardous substance", "hazardous waste", or "dangerous or extremely hazardous wastes" as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), and shall also include materials regulated by the Toxic Substances Control Act (TSCA), the Clean Air Act, the Air Quality Act, the Clean Water Act, and the Occupational Safety and Health Act. The Work in the affected area shall not therefore be resumed except by written agreement of the Principal Representative and the Contractor, if in fact materials that are hazardous substances have not been rendered harmless. The Work in the affected area shall be resumed only in the absence of the hazardous substances or when it has been rendered harmless or by written agreement of the Principal Representative and the Contractor.

The contractor shall not be required to perform Work without consent in any areas where it reasonably believes hazardous substances that have not been rendered harmless are present.

35.4 EMERGENCY FIELD CHANGE ORDERED WORK

The Principal Representative, without invalidating the Agreement, and with the approval of State Buildings Program and without the approval of the State Controller, may order extra Work or make changes in the case of an emergency that is a threat to life or property or where the likelihood of delays in processing a normal Change Order will result in substantial delays and or significant cost increases for the Project. Emergency Field Orders are not to be used solely to expedite normal Change Order processing absent a clear showing of a high potential for significant and substantial cost or delay. Such changes in the Work may be directed through issuance of an Emergency Field Change Order signed by the Contractor, the Principal Representative (or by a designee specifically appointed to do so in writing), and approved by the Director of State Buildings Program or his or her delegate. The change shall be directed using an Emergency Field Change Order form (SC-6.31E).

If the amount of the adjustment of the Contract price and time for completion can be determined at the time of issuance of the Emergency Field Change Order, those adjustments shall be reflected on the face of the Emergency Field Change Order. Otherwise, the Emergency Field Change Order shall reflect a not to exceed (NTE) amount for any schedule adjustment (increasing or decreasing the time for completion) and an NTE amount for any adjustment to Contract sum, which NTE amount shall represent the maximum amount of adjustment to which the Contractor will be entitled, including direct and indirect costs of changed Work, as well as any direct or indirect costs attributable to delays, inefficiencies or other impacts arising out of the change. Emergency Field

Change Orders directed in accordance with this provision need not bear the approval signatures of the State Controller.

On Emergency Field Change Orders where the price and schedule have not been finally determined, the Contractor shall submit final costs for adjustment as soon as practicable. No later than seven (7) days after issuance, except as otherwise permitted, and every seven days thereafter, the Contractor shall report all costs to the Principal Representative and the Architect/Engineer. The final adjustment of the Emergency Field Change Order amount and the adjustment to the Project time for completion shall be prepared on a normal Change Order from (SC-6.31) in accordance with the procedures described in Article 35.1, The Value of Changed Work, and B, Detailed Breakdown, above. Unless otherwise provided in writing signed by the Director of State Buildings Program to the Principal Representative and the Contractor, describing the extent and limits of any greater authority, individual Emergency Field Change Orders shall not be issued for more than \$25,000, nor shall the cumulative value of Emergency Field Change Orders exceed an amount of \$100,000.

35.5 APPROPRIATION LIMITATIONS - C.R.S. § 24-91-103.6, as amended

The amount of money appropriated, as shown on the Contractor's Design/Bid/Build Agreement (SC 6.21), is equal to or in excess of the Contract amount. No Change Order, Emergency Field Change Order, or other type of order or directive shall be issued by the Principal Representative, or any agent acting on his or her behalf, which directs additional compensable Work to be performed, which Work causes the aggregate amount payable under the Contract to exceed the amount appropriated for the original Contract, as shown on the Agreement (SC-6.21), unless one of the following occurs: (1) the Contractor is provided written assurance from the Principal Representative that sufficient additional lawful appropriations exist to cover the cost of the additional Work; or (2) the Work is covered by a contractor remedy provision under the Contract, such as a claim for extra cost. By way of example only, no assurance is required for any order, directive or instruction by the Architect/Engineer or the Principal Representative to perform Work which is determined to be within the performance required by the Contract Documents; the Contractor's remedy shall be as described elsewhere in these General Conditions.

Written assurance shall be in the form of an Amendment to the Contract reciting the source and amount of such appropriation available for the Project. No remedy granting provision of this Contract shall obligate the Principal Representative to seek appropriations to cover costs in excess of the amounts recited as available to pay for the Work to be performed.

36 ARTICLE 36 CLAIMS

It is the intent of these General Conditions to provide procedures for speedy and timely resolution of disagreements and disputes at the lowest level possible. In the spirit of on the job resolution of job site issues, the parties are encouraged to use the partnering processes of Article 2.4, Partnering, Communications and Cooperation, before turning to the more formal claims processes described in this Article 36, Claims. The use of non-binding dispute resolution, whether through the formal processes described in Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, or through less formal alternative processes developed as part of a partnering plan, are also encouraged. Where such process cannot resolve the issues in dispute, the claims process that follows is intended to cause the issues to be presented, decided and where necessary, documented in close proximity to the events from which the issues arise. To that end, and in summary of the remedy granting process that follows commencing with the next paragraph of

this Article 36, Claims, the Contractor shall 1) first, seek a decision by the Architect/Engineer, and 2) shall second, informally present the claim to Principal Representative as described hereafter, and 3) failing resolution in the field, give Notice of intent to exercise statutory rights of review of a formal contract controversy, and 4) seek resolution outside the Contract as provided by the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

If the Contractor claims that any instructions, by detailed drawings, or otherwise, or any other act or omission of the Architect/Engineer or Principal Representative affecting the scope of the Contractor's Work, involve extra cost, extra time or changes in the scope of the Work under this Contract, the Contractor shall have the right to assert a claim for such costs or time, provided that before either proceeding to execute such Work (except in an emergency endangering life or property), or filing a Notice of claim, the Contractor shall have obtained or requested a written decision of the Architect/Engineer following the procedures as provided in Article 6.1 and 6.2, Architect/Engineer Decisions and Judgments, respectively; provided, however, that in the case of a directed change in the Work pursuant to Article 35, no written judgment or decision of the Architect/Engineer is required. If the Contractor is delayed by the lack of a response to a request for a decision by the Architect/Engineer, the Contractor shall give Notice in accordance with Article 38, Delays and Extensions of Time.

Unless it is the Architect/Engineer's judgment and determination that the Work is not included in the performance required by the Contract Documents, the Contractor shall proceed with the Work as originally directed. Where the Contractor's claim involves a dispute concerning the value of Work unilaterally directed pursuant to Article 35.A.2 the Contractor shall also proceed with the Work as originally directed while his or her claim is being considered.

The Contractor shall give the Principal Representative and the Architect/Engineer Notice of any claim promptly after the receipt of the Architect/Engineer's decision, but in no case later than three (3) business days after receipt of the Architect/Engineer's decision (or no later than ten (10) days from the date of the Contractor's request for a decision when the Architect/Engineer fails to decide as provided in Article 6). The Notice of claim shall state the grounds for the claim and the amount of the claim to the extent known in accordance with the procedures of Article 35, Changes in the Work. The period in which Notice must be given may be extended by the Principal Representative if requested in writing by the Contractor with good cause shown, but any such extension to be effective shall be in writing.

The Principal Representative shall respond in writing, with a copy to the Architect/Engineer, within a reasonable time, and except where a request for facilitation of negotiation has been made as hereafter provided, in no case later than seven (7) business days (or at such other time as the Contractor and Principal Representative agree) after receipt of the Contractor's Notice of claim regarding such instructions or alleged act or omission. If no response to the Contractor's claim is received within seven (7) business days of Contractor's Notice (or at such other time as the Contractor and Principal Representative agree) and the instructions have not been retracted, it shall be deemed that the Principal Representative has denied the claim.

The Principal Representative may grant or deny the claim in whole or in part, and a Change Order shall be issued if the claim is granted. To the extent any portion of claim is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35.1, The Value of Changed Work. Except in the case of a deemed denial, the Principal Representative shall provide a written explanation regarding any portion of the Contractor's claim that is denied.

If the Contractor disagrees with the Principal Representative's judgment and determination on the claim and seeks an equitable adjustment of the Contract sum or time for performance, he or she shall give Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy within ten (10) days of receipt of the Principal Representative's decision denying the claim. A "contract controversy," as such term is used in the Colorado Procurement Code or the applicable procurement code for institutions of higher education, shall not arise until the initial claim process described above in this Article 36 has been properly exhausted by the Contractor. The Contractor's failure to proceed with Work directed by the Architect/Engineer or to exhaust the claim process provided above in this Article 36, shall constitute an abandonment of the claim by the Contractor and a waiver of the right to contest the decision in any forum.

At the time of filing the Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy, the Contractor may request that the Principal Representative defer a decision on the contract controversy until a later date or until the end of the Project. If the Principal Representative agrees, he or she shall so advise the Contractor in writing. If no such request is made, or if the Principal Representative does not agree to such a request, the Principal Representative shall render a written decision within twenty (20) business days and advise the Contractor of the reasons for any denial. Unless the claim has been decided by the Principal Representative (as opposed to delegates of the Principal Representative), the person who renders the decision on this statutory contract controversy shall not be the same person who decided the claim. To the extent any portion of the contract controversy is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35.1, The Value of Changed Work. In the event of a denial, the Principal Representative shall give Notice to the Contractor of his or her right to administrative and judicial reviews as provided in the Colorado Procurement Code or the applicable procurement code for institutions of higher education. If no decision regarding the contract controversy is issued within twenty (20) business days of the Contractor's giving Notice (or such other date as the Contractor and Principal Representative have agreed), and the instructions have not been retracted or the alleged act or omission have not been corrected, it shall be deemed that the Principal Representative has ruled by denial on the contract controversy. Except in the case of a deemed denial, the Principal Representative shall provide an explanation regarding any portion of the contract controversy that involves denial of the Contractor's claim.

Either the Contractor or the Principal Representative may request facilitation of negotiations concerning the claim or the contract controversy, and if requested, the parties shall consult and negotiate before the Principal Representative decides the issue. Any request for facilitation by the Contractor shall be made at the time of the giving of Notice of the claim or Notice of the contract controversy. Facilitation shall extend the time for the Principal Representative to respond by commencing the applicable period at the completion of the facilitated negotiation, which shall be the last day of the parties' meeting, unless otherwise agreed in writing.

Disagreement with the decision of the Architect Engineer, or the decision of the Principal Representative to deny any claim or denying the contract controversy, shall not be grounds for the Contractor to refuse to perform the Work directed or to suspend or terminate performance. During the period that any claim or contract controversy decision is pending under this Article 36, Claims, the Contractor shall proceed diligently with the Work directed.

In all cases where the Contractor proceeds with the Work and seeks equitable adjustment by filing a claim and or statutory appeal, the Contractor shall keep a correct account of the extra cost, in accordance with Article 35.2, Detailed Breakdown supported by receipts. The Principal

Representative shall be entitled to reject any claim or contract controversy whenever the foregoing procedures are not followed and such accounts and receipts are not presented.

The payments to the Contractor in respect of such extra costs shall be limited to reimbursement for the current additional expenditure by the Contractor made necessary by the change in the Work, plus a reasonable amount for overhead and profit, determined in accordance with Article 35.2, Detailed Breakdown, determined solely with reference to the additional Work, if any, required by the change.

37 ARTICLE 37 DIFFERING SITE CONDITIONS

37.1 NOTICE IN WRITING

The Contractor shall promptly, and where possible before conditions are disturbed, give the Architect/Engineer and the Principal Representative Notice in writing of:

- a) Subsurface or latent physical conditions at the site differing materially from those indicated in or reasonably assumed from the information provided in the Contract Documents; and,
- b) Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

The Architect/Engineer shall promptly investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Contractor's costs of performance of any part of the Work required by the Contract Documents, whether or not such Work is changed as a result of such conditions, an equitable adjustment shall be made and the Contract sum shall be modified in accordance with Article 35, Changes in the Work.

If the time required for completion of the Work affected by such materially differing conditions will extend the Work on the critical path as indicated on the CPM schedule, the time for completion shall also be equitably adjusted.

37.2 LIMITATIONS

No claim of the Contractor under this clause shall be allowed unless the Contractor has given the Notice required in Article 37.1, Notice in Writing, above. The time prescribed for presentation and adjustment in Articles 36, Claims and 38, Delays and Extensions of Time, shall be reasonably extended by the State to the extent required by the nature of the differing conditions; provided, however, that even when so extended no claim by the Contractor for an equitable adjustment hereunder shall be allowed if not quantified and presented prior to the date the Contractor requests a final inspection pursuant to Article 41.1, Notice of Completion.

38 ARTICLE 38 DELAYS AND EXTENSIONS OF TIME

If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the State of Colorado or the Architect/Engineer, or of any employee or agent of either, or by any separately employed Contractor or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any other causes beyond the Contractor's control, including weather delays as defined below, the time of Completion of the Work shall be extended for a period equal

to such portion of the period of delays directly affecting the completion of the Work as the Contractor shall be able to show he or she could not have avoided by the exercise of due diligence.

The Contractor shall provide Notice in writing to the Architect/Engineer, the Principal Representative and State Buildings Program within three (3) business days from the beginning of such delay and shall file a written claim for an extension of time within seven (7) business days after the period of such delay has ceased, otherwise, any claim for an extension of time is waived.

Provided that the Contractor has submitted reasonable schedules for approval when required by Article 12, Requests for Information and Schedules, if no schedule is agreed to fixing the dates on which the responses to requests for information or detail drawings will be needed, or Shop Drawings, Product Data or Samples are to be reviewed as required or allowed by Article 12.2, Schedules, no extension of time will be allowed for the Architect/ Engineer's failure to furnish such detail drawings as needed, or for the failure to initially review Shop Drawings, Product Data or Samples, except in respect of that part of any delay in furnishing detail drawings or instructions extending beyond a reasonable period after written demand for such detailed drawings or instructions is received by the Architect/Engineer. In any event, any claim for an extension of time for such cause will be recognized only to the extent of delay directly caused by failure to furnish detail drawings or instructions or to review Shop Drawings, Product Data or Samples pursuant to schedule, after such demand.

All claims for extension of time due to a delay claimed to arise or result from ordered changes in the scope of the Work, or due to instructions claimed to increase the scope of the Work, shall be presented to the Architect/Engineer, the Principal Representative and State Buildings Program as part of a claim for extra cost, if any, in accordance with Article 36, Claims, and in accordance with the Change Order procedures required by Article 35, Changes in The Work.

Except as otherwise provided in this paragraph, no extension of time shall be granted when the Contractor has failed to utilize a CPM schedule or otherwise identify the Project's critical path as specified in Article 12, Requests for Information and Schedules, or has elected not to do so when allowed by the Supplementary General Conditions or the Specifications to use less sophisticated scheduling tools, or has failed to maintain such a schedule. Delay directly affecting the completion of the Work shall result in an extension of time only to the extent that completion of the Work was affected by impacts to the critical path shown on Contractor's CPM schedule. Where the circumstances make it indisputable in the opinion of the Architect/Engineer that the delay affected the completion of the Work so directly that the additional notice of the schedule impact by reference to a CPM schedule was unnecessary, a reasonable extension of time may be granted.

Extension of the time for completion of the Work will be granted for delays due to weather conditions only when the Contractor demonstrates that such conditions were more severe and extended than those reflected by the ten-year average for the month, as evidenced by the Climatological Data, U. S. Department of Commerce, for the Project area.

Extensions of the time for completion of the Work due to weather will be granted on the basis of one and three tenths (1.3) calendar days for every day that the Contractor would have Worked but was unable to Work, with each separate extension figured to the nearest whole calendar day.

For weather delays and delays caused by events, acts or omissions not within the control of the Principal Representative or any person acting on the Principal Representative's behalf, the Contractor shall be entitled to an extension of time only and shall not be entitled to recovery of additional cost due to or resulting from such delays. This Article does not, however, preclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

39 ARTICLE 39

NON-BINDING DISPUTE RESOLUTION – FACILITATED NEGOTIATIONS

The Contractor and Principal Representative agree to designate one or more mutually acceptable persons willing and able to facilitate negotiations and communications for the resolution of conflicts, disagreements or disputes between them at the specific request of either party with regard to any Project decision of either of them or any decision of the Architect/Engineer. The designation of such person(s) shall not carry any obligation to use their services except that each party agrees that if the other party requests the intervention of such person(s) with respect to any such conflict, dispute or disagreement, the non-requesting party shall participate in good faith attempts to negotiate a resolution of the issue in dispute. If the parties cannot agree on a mutually acceptable person to serve in this capacity one shall be so appointed; provided, however, that either party may request the director of State Buildings Program to appoint such a person, who, if appointed, shall be accepted for this purpose by both the Contractor and the Principal Representative.

The cost, if any, of the facilitative services of the person(s) so designated shall be shared if the parties so agree in any partnering plan; or in the absence of agreement the cost shall be borne by the party requesting the facilitation of negotiation.

Any dispute, claim, question or disagreement arising from or relating to the Contract or an alleged breach of the Contract may be subject to a request by either party for facilitated negotiation subject to the limitations hereafter listed, and the parties shall participate by consultation and negotiation with each other, as guided by the facilitator and with recognition of their mutual interests, in an attempt to reach an equitable solution satisfactory to both parties.

The obligation to participate in facilitated negotiations shall be as described above and elsewhere in these General Conditions, as by way of example in Article 36, Claims, or Article 34, Deductions for Uncorrected Work and to the extent not more particularly described or limited elsewhere, each party's obligations shall be as follows:

- a) A party shall not initiate communication with the facilitator regarding the issues in dispute; except that any request for facilitation shall be made in writing with copies sent, faxed or delivered to the other party;
- b) A party shall prepare a brief written description of its position if so requested by the facilitator (who may elect to first discuss the parties' positions with each party separately in the interest of time and expense);
- c) A party shall respond to any reasonable request for copies of documents requested by the facilitator, but such requests, if voluminous, may consist of an offer to allow the facilitator access to the parties' documents;
- d) A party shall review any meeting agenda proposed by a facilitator and endeavor to be informed on the subjects to be discussed;
- e) A party shall meet with the other party and the facilitator at a mutually acceptable place and time, or, if none can be agreed to, at the time and place designated by the facilitator for a period not to exceed four hours unless the parties agree to a longer period;
- f) A party shall endeavor to assure that any facilitation meeting shall be attended by any other persons in their employ that the facilitator requests be present, if reasonably available, including the Architect/Engineer;

- g) Each party shall participate in such facilitated face-to-face negotiations of the issues in dispute through persons fully authorized to resolve the issue in dispute;
- h) Each party shall be obligated to participate in negotiations requested by the other party and to perform the specific obligations described in paragraphs (1) through (10) this Article 39, Facilitated Negotiation, no more than three times during the course of the Project;
- i) Neither party shall be under any obligation to resolve any issue by facilitated negotiation, but each agrees to participate in good faith and the Principal Representative shall direct the Architect/Engineer to appropriately document any resolution or agreement reached and to execute any Amendment or Change Order to the Contract necessary to implement their agreement; and,
- j) Any discussions and documents prepared exclusively for use in the negotiations shall be deemed to be matters pertaining to settlement negotiations and shall not be subsequently available in further proceedings except to the extent of any documented agreement.

In accordance with State Fiscal Rules and Article 52.6, Choice of Law; No Arbitration, nothing in this Article 39 shall be deemed to call for arbitration or otherwise obligate the State to participate in any form of binding alternative dispute resolution.

A partnering plan developed as described in Article 2.4, Partnering, Communications and Cooperation, may modify or expand the requirements of this Article but may not reduce the obligation to participate in facilitated negotiations when applicable. In the case of small projects estimated to be valued under \$500,000, the requirements of this Article may be deleted from this Contract, by modification in Article 7 (Contractor's Agreement SC-6.21), Optional Provisions and Elections. When so modified, the references to the parties' right to elect facilitated negotiation elsewhere in these General Conditions shall be deleted.

40 ARTICLE 40 RIGHT OF OCCUPANCY

The Principal Representative shall have the right to take possession of and to use any completed or partially completed portions of the Work, even if the time for completing the entire Work or portions of the Work has not expired and even if the Work has not been finally accepted, and the Contractor shall fully cooperate with the Principal Representative to allow such possession and use. Such possession and use shall not constitute an acceptance of such portions of the Work.

Prior to any occupancy of the Project, an inspection shall be made by the Principal Representative, State Buildings Program and the Contractor. Such inspection shall be made for the purpose of ensuring that the building is secure, protected by operation safety systems as designed, operable exits, power, lighting and HVAC systems, and otherwise ready for the occupancy intended and the Notice of Substantial Completion has been issued for the occupancy intended. The inspection shall also document existing finish conditions to allow assessment of any damage by occupants. The Contractor shall assist the Principal Representative in completing and executing State Form SBP-01, Approval of Occupancy/Use, prior to the Principal Representative's possession and use. Any and all areas so occupied will be subject to a final inspection when the Contractor complies with Article 41, Completion, Final Inspection, Acceptance and Settlement.

41 ARTICLE 41 COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

41.1 NOTICE OF COMPLETION

When the Work, or a discrete physical portion of the Work (as hereafter described) which the Principal Representative has agreed to accept separately, is substantially complete and ready for final inspection, the Contractor shall file a written Notice with the Architect/Engineer that the Work, or such discrete physical portion, in the opinion of the Contractor, is substantially complete under the terms of the Contract. The Contractor shall prepare and submit with such Notice a comprehensive list of items to be completed or corrected prior to final payment, which shall be subject to review and additions as the Architect/Engineer or the Principal Representative shall determine after inspection. If the Architect/Engineer or the Principal Representative believe that any of the items on the list of items submitted, or any other item of Work to be corrected or completed, or the cumulative number of items of Work to be corrected or completed, will prevent a determination that the Work is substantially complete, those items shall be completed by the Contractor and the Notice shall then be resubmitted.

41.2 FINAL INSPECTION

Within ten (10) days after the Contractor files written Notice that the Work is substantially complete, the Architect/Engineer, the Principal Representative, and the Contractor shall make a "final inspection" of the Project to determine whether the Work is substantially complete and has been completed in accordance with the Contract Documents. State Buildings Program shall be notified of the inspection not less than three (3) business days in advance of the inspection. The Contractor shall provide the Principal Representative and the Architect/Engineer an updated punch list in sufficient detail to fully outline the following:

- a) Work to be completed, if any; and
- b) Work not in compliance with the Drawings or Specifications, if any.

A final punch list shall be made by the Architect/Engineer in sufficient detail to fully outline to the Contractor:

- a) Work to be completed, if any;
- b) Work not in compliance with the Drawings or Specifications, if any; and
- c) Unsatisfactory Work for any reason, if any.

The required number of copies of the final punch list will be countersigned by the authorized representative of the Principal Representative and will then be transmitted by the Architect/Engineer to the Contractor, the Principal Representative, and State Buildings Program. The Architect/Engineer's final punch list shall control over the Contractor's preliminary punch list.

41.3 NOTICE OF SUBSTANTIAL COMPLETION

Notice of Substantial Completion shall establish the date of substantial completion of the Project. The Contractor acknowledges and agrees that because the departments, agencies and institutions of the State of Colorado are generally involved with the business of the public at large, greater care must be taken in establishing the date of substantial completion than might otherwise be the case to ensure that a project or building or discrete physical portion of the Work is fully usable and safe for public use, and that such care necessarily raises the standard by which the concept of substantial completion is applied for a public building.

The Notice of Substantial Completion shall not be issued until the following have been fully established:

- a) All required building code inspections have been called for and the appropriate code officials have affixed their signatures to the Building Inspection Record indicating successful completion of all required code inspections;
- b) All required corrections noted on the Building Inspection Record shall have been completed unless the Architect/Engineer, the Principal Representative and State Buildings Program, in their complete and absolute discretion, all concur that the condition requiring the remaining correction is not in any way life threatening, does not otherwise endanger persons or property, and does not result in any undue inconvenience or hardship to the Principal Representative or the public;
- c) The building, structure or Project can be fully and comfortably used by the Principal Representative and the public without undue interference by the Contractor's employees and Workers during the completion of the final punch list taking into consideration the nature of the public uses intended and taking into consideration any stage or level of completion of HVAC system commissioning or other system testing required by the Specifications to be completed prior to issuance of the Notice of Substantial Completion;
- d) The Project has been fully cleaned as required by these General Conditions, and as required by any stricter requirements of the Specifications, and the overall state of completion is appropriate for presentation to the public; and
- e) The Contractor has provided a schedule for the completion of each and every item identified on the punch list which specifies the Subcontractor or trade responsible for the Work, and the dates the completion or correction of the item will be commenced and finished; such schedule will show completion of all remaining final punch list items within the period indicated in the Contract for final punch list completion prior to Final Acceptance, with the exception of only those items which are beyond the control of the Contractor despite due diligence. The schedule shall provide for a reasonable punch list inspection process. Unless liquidated damages have been specified in Article 7.6 of the Contractor's Design/Bid/Build Agreement SC-6.21), the cost to the Principal Representative, if any, for re-inspections due to failure to adhere to the Contractor's proposed punch-list completion schedule shall be the responsibility of the Contractor and may be deducted by the Principal Representative from final amounts due to the Contractor.

Substantial completion of the entire Project shall not be conclusively established by a decision by the Principal Representative to take possession and use of a portion, or all of the Project, where portions of the Project cannot meet all the criteria noted above. Notice of Substantial Completion for the entire Project shall, however, only be withheld for substantial reasons when the Principal Representative has taken possession and uses all of the Project in accordance with the terms of Article 40, Right of Occupancy. Failure to furnish the required completion schedule shall constitute a substantial reason for withholding the issuance of any Notice of Substantial Completion.

The Contractor shall have the right to request a final inspection of any discrete physical portion of the Project when in the opinion of the Principal Representative, The Architect/Engineer and State Buildings Program a final punch list can be reasonably prepared, without confusion as to which portions of the Project are referred to in any subsequent Notice of Partial Final Settlement which might be issued after such portion is finally accepted. Discrete physical portions of the Project may be, but shall not necessarily be limited to, such portions of the Project as separate

buildings where a Project consists of multiple buildings. Similarly, an addition to an existing building where the Project also calls for renovation or remodeling of the existing building may constitute a discrete physical portion of the Project. In such circumstances, when in the opinion of the Principal Representative, the Architect/Engineer and State Buildings Program, the requirements for issuance of a Notice of Substantial Completion can be satisfied with respect to the discrete portion of the Project, a partial Notice of Substantial Completion may be issued for such discrete physical portion of the Project.

41.4 NOTICE OF ACCEPTANCE

The Notice of Acceptance shall establish the completion date of the Project. It shall not be authorized until the Contractor shall have performed all of the Work to allow completion and approval of the Pre-Acceptance Checklist (SBP-05).

Where partial Notices of Substantial Completion have been issued, partial Notices of Final Acceptance may be similarly issued when appropriate for that portion of the Work. Partial Notice of Final Acceptance may also be issued to exclude the Work described in Change Orders executed during late stages of the Project where a later completion date for the Change Ordered Work is expressly provided for in the Contract as amended by the Change Order, provided the Work can be adequately described to allow partial advertisement of any Notice of Partial Final Settlement to be issued without confusion as to the Work included for which final payment will be made.

41.5 SETTLEMENT

Final payment and settlement shall be made on the date fixed and published for such payment except as hereafter provided. The Principal Representative shall not authorize final payment until all items on the Pre-Acceptance check list (SBP-05) have been completed, the Notice of Acceptance issued, and the Notice of Contractors Settlement published. If the Work shall be substantially completed, but Final Acceptance and completion thereof shall be prevented through delay in correction of minor defects, or unavailability of materials or other causes beyond the control of the Contractor, the Principal Representative in his or her discretion may release all amounts due to the Contractor except such amounts as may be in excess of three times the cost of completing the unfinished Work or the cost of correcting the defective Work, as estimated by the Architect/Engineer and approved by State Buildings Program. Before the Principal Representative may issue the Notice of Contractor's Settlement and advertise the Project for final payment, the Contractor shall have corrected all items on the punch list except those items for which delayed performance is expressly permitted, subject to withholding for the cost thereof, and shall have delivered to the Principal Representative:

- a) All guarantees and warranties;
- b) All statements to support local sales tax refunds, if any;
- c) Required operating maintenance instructions as per the Principal Representative; and,
- d) One (1) set of hard copy as-built Contract Documents, and one (1) electronic copy showing all job changes.
- e) Demonstrated to the operating personnel of the Principal Representative the proper operation and maintenance of all equipment.
- f) A written disclosure of the Five Most Costly Goods incorporated into the project, including iron, steel, or related manufactured goods and the total cost and country of origin of those five goods and whether the project was subject to any existing domestic content preferences.

Upon completion of the foregoing the Project shall be advertised in accordance with the Notice of Contractor's Settlement by two publications of Notice, the last publication appearing at least ten (10) days prior to the time of final settlement. Publication and final settlement should not be postponed or delayed solely by virtue of unresolved claims against the Project or the Contractor from Subcontractors, suppliers or materialmen based on good faith disputes; the resolution of the question of payment in such cases being directed by statute.

Except as hereafter provided, on the date of final settlement thus advertised, provided the Contractor has submitted a written Notice to the Architect/Engineer that no claims have been filed, and further provided the Principal Representative shall have received no claims, final payments and settlement shall be made in full. If any unpaid claim for labor, materials, rental machinery, tools, supplies or equipment is filed before payment in full of all sums due the Contractor, the Principal Representative and the State Controller shall withhold from the Contractor on the date established for final settlement, sufficient funds to insure the payment of such claim, until the same shall have been paid or withdrawn, such payment or withdrawal to be evidenced by filing a receipt in full or an order for withdrawal signed by the claimant or his or her duly authorized agent or assignee. The amount so withheld may be in the amount of 125% of the claims or such other amount as the Principal Representative reasonably deems necessary to cover expected legal expenses. Such withheld amounts shall be in addition to any amount withheld based on the cost to compete unfinished Work or the cost to repair defective Work. However, as provided by statute, such funds shall not be withheld longer than ninety (90) days following the date fixed for final settlement with the Contractor, as set forth in the published Notice of Contractor's Settlement, unless an action at law shall be commenced within that time to enforce such unpaid claim and a Notice of such action at law shall have been filed with the Principal Representative and the State Controller. At the expiration of the ninety (90) day period, the Principal Representative shall authorize the State Controller to release to the Contractor all other money not the subject of such action at law or withheld based on the cost to compete unfinished Work or the cost to repair defective Work.

Notices of Partial Final Settlement may be similarly advertised, provided all conditions precedent have been satisfied as though that portion of the Work affected stood alone, a Notice of Partial Acceptance has been issued, and the consent of surety to the partial final settlement has been obtained in writing. Thereafter, partial final payments may be made to the Contractor subject to the same conditions regarding unpaid claims.

42 ARTICLE 42 GENERAL WARRANTY AND CORRECTION OF WORK AFTER ACCEPTANCE

The Contractor warrants that the materials used and the equipment furnished shall be new and of good quality unless specified to the contrary. The Contractor further warrants that the Work shall, in all respects, be free from material defects not permitted by the Specifications and shall be in accordance with the requirements of the Contract Documents. Neither the final certificate for payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for defects or faulty materials or Workmanship. The Contractor shall be responsible to the Principal Representative for such warranties for the longest period permitted by any applicable statute of limitations.

In addition to these general warranties, and without limitation of these general warranties, for a period of one year after the date of any Notice of Substantial Completion, or any Notice of Partial Substantial Completion if applicable, the Contractor shall remedy defects, and faulty

Workmanship or materials, and Work not in accordance with the Contract Documents which was not accepted at the time of the Notice of Final Acceptance, all in accordance with the provisions of Article 44, One-Year Guarantee And Special Guarantees And Warranties.

43 ARTICLE 43 LIENS

Colorado statutes do not provide for any right of lien against public buildings. In lieu thereof, C.R.S. § 38-26-107, provides adequate relief for any claimant having furnished labor, materials, rental machinery, tools, equipment, or services toward construction of the particular public Work in that final payment may not be made to a Contractor until all such creditors have been put on Notice by publication in the public press of such pending payment and given opportunity for a period of up to ninety (90) days to stop payment to the Contractor in the amount of such claims.

44 ARTICLE 44 ONE-YEAR GUARANTEE AND SPECIAL GUARANTEES AND WARRANTIES

44.1 ONE-YEAR GUARANTEE OF THE WORK

The Contractor shall guarantee to remedy defects and repair or replace the Work for a period of one year from the date of the Notice of Substantial Completion or from the dates of any partial Notices of Substantial Completion issued for discrete physical portions of the Work. The Contractor shall remedy any defects due to faulty materials or Workmanship and shall pay for, repair and replace any damage to other Work resulting there from, which shall appear within a period of one year from the date of such Notice(s) of Substantial Completion. The Contractor shall also remedy any deviation from the requirements of the Contract Documents which shall later be discovered within a period of one year from the date of the Notice of Substantial Completion; provided, however, that the Contractor shall not be required to remedy deviations from the requirements of the Contract Documents where such deviations were obvious, apparent and accepted by the Architect/Engineer or the Principal Representative at the time of the Notice of Final Acceptance. The Principal Representative shall give Notice of observed defects or other Work requiring correction with reasonable promptness. Such Notice shall be in writing to the Architect/Engineer and the Contractor.

The one year guarantee of the Contractor's Work may run separately for discrete physical portions of the Work for which partial Notices of Substantial Completion have been issued, however, it shall run from the last Notice of Substantial Completion with respect to all or any systems common to the Work to which more than one Notice of Substantial Completion may apply.

This one-year guarantee shall not be construed to limit the Contractor's general warranty described in Article 42, General Warranty and Correction of Work After Acceptance, that all materials and equipment are new and of good quality, unless specified to the contrary, and that the Work shall in all respects be free from material defects not permitted by the Specifications and in accordance with the requirements of the Contract Documents.

44.2 SPECIAL GUARANTEES AND WARRANTIES

In case of Work performed for which product, manufacturers or other special warranties are required by the Specifications, the Contractor shall secure the required warranties and deliver copies thereof to the Principal Representative through the Architect/Engineer upon completion of the Work.

These product, manufacturers or other special warranties, as such, do not in any way lessen the Contractor's responsibilities under the Contract. Whenever guarantees or warranties are required by the Specifications for a longer period than one year, such longer period shall govern.

45 ARTICLE 45 GUARANTEE INSPECTIONS AFTER COMPLETION

The Architect/Engineer, the Principal Representative and the Contractor together shall make at least two (2) complete inspections of the Work after the Work has been determined to be substantially complete and accepted. One such inspection, the "Six-Month Guarantee Inspection," shall be made approximately six (6) months after date of the Notice of Substantial Completion, unless in the case of smaller projects valued under \$500,000 this inspection is declined in Article 7.5 (Contractor's Agreement SC-6.21), Modification of Article 45, in which case the inspection to occur at six months shall not be required. Another such inspection, the "Eleven-Month Guaranty Inspection" shall be made approximately eleven (11) months after the date of the Notice of Substantial Completion. The Contractor shall schedule and so notify all parties concerned, and the Principal Representative shall so notify State Buildings Program, of these inspections. If more than one Notice of Substantial Completion has been issued at the reasonable discretion of the Principal Representative separate eleven month inspections may be required where the one year guarantees do not run reasonably concurrent.

Written punch lists and reports of these inspections shall be made by the Architect/Engineer and forwarded to the Contractor, the Principal Representative, State Buildings Program, and all other participants within ten (10) days after the completion of the inspections. The punch list shall itemize all guarantee items, prior punch list items still to be corrected or completed and any other requirements of the Contract Documents to be completed which were not waived by final acceptance because they were not obvious or could not reasonably have been previously observed. The Contractor shall immediately initiate such remedial Work as may be necessary to correct any deficiencies or defective Work shown by this report, and shall promptly complete all such remedial Work in a manner satisfactory to the Architect/Engineer, the Principal Representative and State Buildings Program.

If the Contractor fails to promptly correct all deficiencies and defects shown by this report, the Principal Representative may do so, after giving the Contractor ten (10) days written Notice of intention to do so.

The State of Colorado, acting by and through the Principal Representative, shall be entitled to collect from the Contractor all costs and expenses incurred by it in correcting such deficiencies and defects, as well as all damages resulting from such deficiencies and defects.

46 ARTICLE 46 TIME OF COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed, by and between the parties hereto, that the date of beginning, rate of progress, and the time for completion of the Work to be done hereunder are ESSENTIAL CONDITIONS of this Agreement, and it is understood and agreed that the Work embraced in this Contract shall be commenced at the time specified in the Notice to Proceed (SC-6.26).

It is further agreed that time is of the essence of each and every portion of this Contract, and of any portion of the Work described on the Drawings or Specifications, wherein a definite and certain length of time is fixed for the performance of any act whatsoever. The parties further agree that where under the Contract additional time is allowed for the completion of the Work or any identified portion of the Work, the new time limit or limits fixed by such extension of the time for completion shall be of the essence of this Agreement.

The Contractor acknowledges that subject to any limitations in the Advertisement for Bids, issued for the Project, the Contractor's bid is consistent with and considers the number of days to substantially complete the Project and the number of days to finally complete the Project to which the parties may have stipulated in the Agreement, which stipulation was based on the Contractor's bid. The Contractor agrees that Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure the Project will be substantially complete, and fully and finally complete, as recognized by the issuance of all required Notices of Substantial Completion and Notices of Final Acceptance, within any times stipulated and specified in the Agreement, as the same may be amended by Change Order or other written modification, and that the Principal Representative will be damaged if the times of completion are delayed.

It is expressly understood and agreed, by and between the parties hereto, that the times for the Substantial Completion of the Work or for the final acceptance of the Work as may be stipulated in the Agreement, and as applied here and in Article 7.6 of the Contractor's Design/Bid/Build Agreement SC-6.21), Modifications of Article 46, are reasonable times for these stages of completion of the Work, taking into such consideration all factors, including the average climatic range and usual industrial conditions prevailing in the locality of the building operations.

If the Contractor shall neglect, fail or refuse to complete the Work within the times specified in the Agreement, such failure shall constitute a breach of the terms of the Contract and the State of Colorado, acting by and through the Principal Representative, shall be entitled to liquidated damages for such neglect, failure or refusal, as specified in Article 7.6 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46.

The Contractor and the Contractor's Surety shall be jointly liable for and shall pay the Principal Representative, or the Principal Representative may withhold, the sums hereinafter stipulated as liquidated damages for each calendar day of delay until the entire Project is 1) substantially completed, and the Notice (or all Notices) of Substantial Completion are issued, 2) finally complete and accepted and the Notice (or all Notices) of Acceptance are issued, or 3) both. Delay in substantial completion shall be measured from the Date of the Notice to Proceed and delay in final completion and acceptance shall be measured from the Date of the Notice of Substantial Completion.

In the first instance, specified in Article 7.6.1 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, liquidated damages, if any, shall be the amount specified therein, for each calendar day of delay beginning after the stipulated number of days for Substantial Completion from the date of the Notice to Proceed, until the date of the Notice of Substantial Completion. Unless otherwise specified in any Supplementary General Conditions, in the event of any partial Notice of Substantial Completion, liquidated damages shall accrue until all required Notices of Substantial Completion are issued.

In the second instance, specified in Article 7.6.2 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, liquidated damages, if any, shall be the amount specified in Article 7.6.2 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, for each calendar day in excess of the number of calendar days specified in the Contractor's bid

for the Project and stipulated in the Agreement to finally complete the Project (as defined by the issuance of the Notice of Acceptance) after the final Notice of Substantial Completion has been issued.

In the third instance, when so specified in both Articles 7.6.1 and 7.6.2 of the Contractor's Agreement SC-6.21, both types of liquidated damages shall be separately assessed where those delays have occurred.

The parties expressly agree that said amounts are a reasonable estimate of the presumed actual damages that would result from any of the breaches listed, and that any liquidated damages that are assessed have been agreed to in light of the difficulty of ascertaining the actual damages that would be caused by any of these breaches at the time this Contract was formed; the liquidated damages in the first instance representing an estimate of damages due to the inability to use the Project; the liquidated damages in the second instance representing an estimate of damages due to the additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period including delivery of any or all guarantees and warranties, the submittals of sales and use tax payment forms, the calling for the final inspection and the completion of the final punch list.

The parties also agree and understand that the liquidated damages to be assessed in each instance are separate and distinct, although potentially cumulative, damages for the separate and distinct breaches of delayed substantial completion or final acceptance. Such liquidated damages shall not be avoided by virtue of the fact of concurrent delay caused by the Principal Representative, or anyone acting on behalf of the Principal Representative, but in such event the period of delay for which liquidated damages are assessed shall be equitably adjusted in accordance with Article 38, Delays and Extensions of Time.

47 ARTICLE 47 DAMAGES

If either party to this Contract shall suffer damage under this Contract in any manner because of any wrongful act or neglect of the other party or of anyone employed by either of them, then the party suffering damage shall be reimbursed by the other party for such damage. Except to the extent of damages liquidated for the Contractor's failure to achieve timely completion as set forth in Article 46, Time of Completion and Liquidated Damages, the Principal Representative shall be responsible for, and at his or her option may insure against, loss of use of any existing property not included in the Work, due to fire or otherwise, however caused. Notwithstanding the foregoing, or any other provision of this Contract, to the contrary, no term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act, Section 24-10-101, *et seq.*, CRS, as now or hereafter amended. The parties understand and agree that liability for claims for injuries to persons arising out of negligence of the State of Colorado, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of Section 24-101-101, *et seq.*, CRS, as now or hereafter amended and the risk management statutes, Section 24-30-1501, *et seq.*, CRS, as now or hereafter amended.

Notice of intent to file a claim under this clause shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except that in the case of claims by the Principal Representative involving warranties against faulty Work or materials Notice shall be required only to the extent stipulated elsewhere

in these General Conditions. Claims made to the Principal Representative involving extra cost or extra time arising by virtue of instructions to the Contractor to which Article 36, Claims, applies shall be made in accordance with Article 36. Other claims arising under the Contract involving extra cost or extra time which are made to the Principal Representative under this clause shall also be made in accordance with the procedures of Article 36, whether or not arising by virtue of instructions to the Contractor; provided however that it shall not be necessary to first obtain or request a written judgment of the Architect/Engineer.

Provided written Notice of intent to file a claim is provided as required in the preceding paragraph, nothing in this Article shall limit or restrict the rights of either party to bring an action at law or to seek other relief to which either party may be entitled, including consequential damages, if any, and shall not be construed to limit the time during which any action might be brought. Nothing in these General Conditions shall be deemed to limit the period of time during which any action may be brought as a matter of contract, tort, warranty or otherwise, it being the intent of the parties to allow any and all actions at law or in equity for such periods as the law permits. All such rights shall, however be subject to the obligation to assert claims and to appeal denials pursuant to Article 36, Claims, where applicable.

**48 ARTICLE 48 STATE'S RIGHT TO DO THE WORK; TEMPORARY SUSPENSION OF WORK;
DELAY DAMAGES**

48.1 STATE'S RIGHT TO DO THE WORK

If after receipt of Notice to do so, the Contractor should neglect to prosecute the Work properly or fail to perform any provision of the Contract, the Principal Representative, after a second seven (7) days' advance written Notice to the Contractor and the Surety may, without prejudice to any other remedy the Principal Representative may have, take control of all or a portion of the Work, as the Principal Representative deems necessary and make good such deficiencies deducting the cost thereof from the payment then or thereafter due the Contractor, as provided in Article 30, Correction Of Work Before Acceptance and Article 33, Payments Withheld, provided, however, that the Architect/Engineer shall approve the amount charged to the Contractor by approval of the Change Order.

48.2 TEMPORARY SUSPENSION OF WORK

The State, acting for itself or by and through the Architect/Engineer, shall have the authority to suspend the Work, either wholly or in part, for such period or periods as may be deemed necessary due to:

- a) Unsuitable weather;
- b) Faulty Workmanship;
- c) Improper superintendence or project management;
- d) Contractor's failure to carry out orders or to perform any provision of the Contract Documents;
- e) Loss of, or restrictions to, appropriations;
- f) Conditions, which may be considered unfavorable for the prosecution of the Work.

If it should become necessary to stop Work for an indefinite period, the Contractor shall store materials in such manner that they will not become an obstruction or become damaged in any way; and he or she shall take every precaution to prevent damage to or deterioration of the Work, provide suitable drainage and erect temporary structures where necessary.

Notice of suspension of Work shall be provided to the Contractor in writing stating the reasons therefore. The Contractor shall again proceed with the Work when so notified in writing.

The Contractor understands and agrees that the State of Colorado cannot predict with certainty future revenues and could ultimately lack the revenue to fund the appropriations applicable to this Contract. The Contractor further acknowledges and agrees that in such event that State may, upon Notice to the Contractor, suspend the Work in anticipation of a termination of the Contract for the convenience of the State, pursuant to Article 50, Termination for Convenience of State. If the Contract is not so terminated the Contract sum and the Contract time shall be equitably adjusted at the time the Principal Representative directs the Work to be recommenced and gives Notice that the revenue to fund the appropriation is available.

48.3 DELAY DAMAGES

The Principal Representative and the State of Colorado shall be liable to the Contractor for the payment of any claim for extra costs, extra compensation or damages occasioned by hindrances or delays encountered in the Work only when and to the limited extent that such hindrance or delay is caused by an act or omission within the control of the Principal Representative, the Architect/Engineer or other persons or entities acting on behalf of the Principal Representative. Further, the Principal Representative and the State of Colorado shall be liable to the Contractor for the payment of such a claim only if the Contractor has provided required Notice of the delay or impact, or has presented its claim for an extension of time or claim of other delay or other impact due to changes ordered in the Work before proceeding with the changed Work. Except as otherwise provided, claims for extension of time shall be Noticed and filed in accordance with Article 38, Delays and Extensions of Time, within three (3) business days of the beginning of the delay with any claim filed within seven (7) days after the delay has ceased, or such claim is waived. Claims for extension of time or for other delay or other impact resulting from changes ordered in the Work shall be presented and adjusted as provided in Article 35, Changes in the Work.

49 ARTICLE 49 STATE'S RIGHTS TO TERMINATE CONTRACT

49.1 GENERAL

If the Contractor should be adjudged bankrupt, or if he or she should make a general assignment for the benefit of his or her creditors, or if a receiver should be appointed to take over his affairs, or if he or she should fail to prosecute his or her Work with due diligence and carry the Work forward in accordance with the construction schedule and the time limits set forth in the Contract Documents, or if he or she should fail to subsequently perform one or more of the provisions of the Contract Documents to be performed by him, the Principal Representative may serve written Notice on the Contractor and the Surety on performance and payment bonds, stating his or her intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Principal Representative bases his or her right to exercise such remedy.

In such event, unless the matter complained of is satisfactorily cleared within ten (10) days after delivery of such Notice, the Principal Representative may, without prejudice to any other right or

remedy, exercise one of such remedies at once, having first obtained the concurrence of the Architect/Engineer in writing that sufficient cause exists to justify such action.

49.2 CONDITIONS AND PROCEDURES

49.2.1 Termination

The Principal Representative may terminate the services of the Contractor, which termination shall take effect immediately upon service of Notice thereof on the Contractor and his or her Surety, whereupon the Surety shall have the right to take over and perform the Contract. If the Surety does not provide Notice to the Principal Representative of its intent to commence performance of the Contract within ten (10) days after delivery of the Notice of termination, the Principal Representative may take over the Work, take possession of and use all materials, tools, equipment and appliances on the premises and prosecute the Work to completion by such means as he or she shall deem best. In the event of such termination of his or her service, the Contractor shall not be entitled to any further payment under the Contract until the Work is completed and accepted. If the Principal Representative takes over the Work and if the unpaid balance of the contract price exceeds the cost of completing the Work, including compensation for any damages or expenses incurred by the Principal Representative through the default of the Contractor, such excess shall be paid to the Contractor. If, however, the cost, expenses and damages as certified by the Architect/Engineer exceed such unpaid balance of the contract price, the Contractor and his or her Surety shall pay the difference to the Principal Representative.

49.2.2 Use of Surety

The Principal Representative may require the Surety on the Contractor's bond to take control of the Work and see to it that all the deficiencies of the Contractor are made good, with due diligence within ten (10) days of delivery of Notice to the Surety to do so. As between the Principal Representative and the Surety, the cost of making good such deficiencies shall all be borne by the Surety. If the Surety takes over the Work, either by election upon termination of the services of the Contractor pursuant to Section B(1) of this Article 49, State's Right To Terminate Contract, or upon instructions from the Principal Representative to do so, the provisions of the Contract Documents shall govern the Work to be done by the Surety, the Surety being substituted for the Contractor as to such provisions, including provisions as to payment for the Work, the times of completion and provisions of this Article as to the right of the Principal Representative to do the Work or to take control of all or a portion of the Work.

49.2.3 Correcting Deficiencies

The Principal Representative may take control of all or a portion of the Work and make good the deficiencies of the Contractor, or the Surety if the Surety has been substituted for the Contractor, with or without terminating the Contract, employing such additional help as the Principal Representative deems advisable in accordance with the provisions of Article 48.1, State's Right to Do the Work; Temporary Suspension of Work; Delay Damages. In such event, the Principal Representative shall be entitled to collect from the Contractor and his or her Surety, or to deduct from any payment then or thereafter due the Contractor, the costs incurred in having such deficiencies made good and any damages or expenses incurred through the default of Contractor, provided the Architect/Engineer approves the amount thus charged to the Contractor.

If the Contract is not terminated, a Change Order to the Contract shall be executed, unilaterally if necessary, in accordance with the procedures of Article 35, Changes in The Work.

49.3 ADDITIONAL CONDITIONS

If any termination by the Principal Representative for cause is later determined to have been improper, the termination shall be automatically converted to and deemed to be a termination by the Principal Representative for convenience and the Contractor shall be limited in recovery to the compensation provided for in Article 50, Termination for Convenience of State. Termination by the Contractor shall not be subject to such conversion.

50 ARTICLE 50 TERMINATION FOR CONVENIENCE OF STATE

50.1 NOTICE OF TERMINATION

The performance of Work under this Contract may be terminated, in whole or from time to time in part, by the State whenever for any reason the Principal Representative shall determine that such termination is in the best interest of State. Termination of Work hereunder shall be effected by delivery to the Contractor of a Notice of such termination specifying the extent to which the performance of Work under the Contract is terminated and the date upon which such termination becomes effective.

50.2 PROCEDURES

After receipt of the Notice of termination, the Contractor shall, to the extent appropriate to the termination, cancel outstanding commitments hereunder covering the procurement of materials, supplies, equipment and miscellaneous items. In addition, the Contractor shall exercise all reasonable diligence to accomplish the cancellation or diversion of all applicable outstanding commitments covering personal performance of any Work terminated by the Notice. With respect to such canceled commitments, the Contractor agrees to:

- a) Settle all outstanding liabilities and all claims arising out of such cancellation of commitments, with approval or ratification of the Principal Representative, to the extent he or she may require, which approval or ratification shall be final for all purposes of this clause; and,
- b) Assign to the State, in the manner, at the time, and to the extent directed by the Principal Representative, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the State shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

The Contractor shall submit his or her termination claim to the Principal Representative promptly after receipt of a Notice of termination, but in no event later than three (3) months from the effective date thereof, unless one or more extensions in writing are granted by the Principal Representative upon written request of the Contractor within such three-month period or authorized extension thereof. Upon failure of the Contractor to submit his or her termination claim within the time allowed, the Principal Representative may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.

Costs claimed, agreed to, or determined pursuant to the preceding and following paragraph shall be in accordance with the provisions of the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

Subject to the preceding provisions, the Contractor and the Principal Representative may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the termination under this clause, which amount or amounts may include any reasonable cancellation charges thereby incurred by the Contractor and any reasonable loss upon outstanding commitments for personal services which he or she is unable to cancel; provided, however, that in connection with any outstanding commitments for personal services which the Contractor is unable to cancel, the Contractor shall have exercised reasonable diligence to divert such commitments to other activities and operations. Any such agreement shall be embodied in an Amendment to this Contract and the Contractor shall be paid the agreed amount.

The State may from time to time, under such terms and conditions as it may prescribe, make partial payments against costs incurred by the Contractor in connection with the termination portion of this Contract, whenever, in the opinion of the Principal Representative, the aggregate of such payments is within the amount to which the Contractor will be entitled hereunder.

The Contractor agrees to transfer title and deliver to the State, in the manner, at the time, and to the extent, if any, directed by the Principal Representative, such information and items which, if the Contract had been completed, would have been required to be furnished to the State, including:

- a) Completed or partially completed plans, Drawings and information; and,
- b) Materials or equipment produced or in process or acquired in connection with the performance of the Work terminated by the Notice.

Other than the above, any termination inventory resulting from the termination of the Contract may, with written approval of the Principal Representative, be sold or acquired by the Contractor under the conditions prescribed by and at a price or prices approved by the Principal Representative. The proceeds of any such disposition shall be applied in reduction of any payments to be made by the State to the Contractor under this Contract or shall otherwise be credited to the price or cost of Work covered by this Contract or paid in such other manners as the Principal Representative may direct. Pending final disposition of property arising from the termination, the Contractor agrees to take such action as may be necessary, or as the Principal Representative may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the State has or may acquire an interest.

Any disputes as to questions of fact, which may arise hereunder, shall be subject to the Remedies provisions of the Colorado Procurement Code or the applicable procurement code for institutions of higher education.

51 ARTICLE 51 CONTRACTOR'S RIGHT TO STOP WORK AND/OR TERMINATE CONTRACT

If the Work shall be stopped under an order of any court or other public authority for a period of three (3) months through no act or fault of the Contractor or of any one employed by him, then the Contractor may on seven (7) days' written Notice to the Principal Representative and the Architect/Engineer stop Work or terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained on any plant or material, and a reasonable profit only for the Work completed. If the Architect/Engineer shall fail to issue or otherwise act in writing upon any certificate for payment within ten (10) days after it is presented

and received by the Architect/Engineer, as provided in Article 31, Applications For Payments, or if the Principal Representative shall fail to pay the Contractor any sum certified that is not disputed in whole or in part by the Principal Representative in writing to the Contractor and the Architect/Engineer within thirty (30) days after the Architect/Engineer's certification, then the Contractor may on ten (10) days' written Notice to the Principal Representative and the Architect/Engineer stop Work and/or give written Notice of intention to terminate this Contract.

If the Principal Representative shall thereafter fail to pay the Contractor any amount certified by the Architect/Engineer and not disputed in writing by the Principal Representative within ten (10) days after receipt of such Notice, then the Contractor may terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained upon any plant or materials, and a reasonable profit only for the Work completed. The Principal Representative's right to dispute an amount certified by the Architect/Engineer shall not relieve the Principal Representative of the obligation to pay amounts not in dispute as certified by the Architect/Engineer.

52 ARTICLE 52 SPECIAL PROVISIONS

52.1 CONTROLLER'S APPROVAL, C.R.S. § 24-30-202(1)

This contract shall not be valid until it has been approved by the Colorado State Controller or designee.

52.2 FUND AVAILABILITY, C.R.S. § 24-30-202(5.5)

Financial obligations of the State payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available.

52.3 GOVERNMENTAL IMMUNITY

Liability for claims for injuries to persons or property arising from the negligence of the State, its departments, boards, commissions committees, bureaus, offices, employees and officials shall be controlled and limited by the provisions of the Colorado Governmental Immunity Act, §24-10-101, et seq., C.R.S.; the Federal Tort Claims Act, 28 U.S.C. Pt. VI, Ch. 171 and 28 U.S.C. 1346(b), and the State's risk management statutes, §§24-30-1501, et seq. C.R.S. No term or condition of this Contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, contained in these statutes.

52.4 INDEPENDENT CONTRACTOR

Contractor shall perform its duties hereunder as an independent Contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be deemed to be an agent or employee of the State. Contractor shall not have authorization, express or implied, to bind the State to any agreement, liability or understanding, except as expressly set forth herein. **Contractor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for Contractor or any of its agents or employees. Contractor shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this Contract. Contractor shall (i) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, (ii) provide proof thereof when requested by the State, and (iii) be solely responsible for its acts and those of its employees and agents.**

52.5 COMPLIANCE WITH LAW

Contractor shall comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

52.6 CHOICE OF LAW, JURISDICTION, AND VENUE

Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this Contract. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. All suits or actions related to this Contract shall be filed and proceedings held in the State of Colorado and exclusive venue shall be in the City and County of Denver.

52.7 PROHIBITED TERMS

Any term included in this Contract that requires the State to indemnify or hold Contractor harmless; requires the State to agree to binding arbitration; limits Contractor's liability for damages resulting from death, bodily injury, or damage to tangible property; or that conflicts with this provision in any way shall be void ab initio. Nothing in this Contract shall be construed as a waiver of any provision of §24-106-109, C.R.S.

52.8 SOFTWARE PIRACY PROHIBITION. SOFTWARE PIRACY PROHIBITION

State or other public funds payable under this Contract shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Contractor hereby certifies and warrants that, during the term of this Contract and any extensions, Contractor has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Contractor is in violation of this provision, the State may exercise any remedy available at law or in equity or under this Contract, including, without limitation, immediate termination of this Contract and any remedy consistent with federal copyright laws or applicable licensing restrictions.

52.9 EMPLOYEE FINANCIAL INTEREST/CONFLICT OF INTEREST

C.R.S. § 24-18-201 and C.R.S. § 24-50-507

The signatories aver that to their knowledge, no employee of the State has any personal or beneficial interest whatsoever in the service or property described in this contract. Contractor has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Contractor services and Contractor shall not employ any person having such known interests.

52.10 VENDOR OFFSET AND ERRONEOUS PAYMENTS

C.R.S. § 24-30-202(1) & C.R.S. § 24-30-202.4

Subject to §24-30-202.4(3.5), C.R.S., the State Controller may withhold payment under the State's vendor offset intercept system for debts owed to State agencies for: (i) unpaid child support debts or child support arrearages; (ii) unpaid balances of tax, accrued interest, or other charges specified in §§39-21-101, et seq., C.R.S.; (iii) unpaid loans due to the Student Loan Division of the Department of Higher Education; (iv) amounts required to be paid to the Unemployment Compensation Fund; and (v) other unpaid debts owing to the State as a result of final agency determination or judicial action. The State may also recover, at the State's discretion, payments made to Contractor in error for any reason, including, but not limited to, overpayments or improper payments, and unexpended or excess funds received by Contractor by deduction from subsequent payments under this Contract, deduction from any payment due under any other

contracts, grants or agreements between the State and Contractor, or by any other appropriate method for collecting debts owed to the State.

53 ARTICLE 53 MISCELLANEOUS PROVISIONS

53.1 PROFESSIONAL ASSOCIATION PERMITTED

The Contractor may, with the prior written consent of the Principal Representative, join with him in the performance of this Agreement any other duly licensed Architect or Architects or registered Engineers with whom he may, in good faith, and enter into an association.

53.2 DISSOLUTION OF PROFESSIONAL ASSOCIATION

In the event there is dissolution of the association, other than by death of a member, the State of Colorado, acting by and through the Principal Representative, shall designate which former member shall continue with the work and may make all payments thereafter falling due in connection with the work directly to the person or persons so designated and without being required to look to the application of such payments as among the former members.

53.3 WAGE RATES, in accordance with C.R.S. § 24-30-1404 (1)

As amended, the Contractor has executed a schedule, which is attached hereto and made a part hereof by reference as **Exhibit B**, Wage Rates Schedule, and by doing so is certifying that wage rates and other factual unit costs supporting the compensation paid by the State for these professional services are accurate, complete and current.

The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the Principal Representative determines the contract price had been increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. All such contract adjustments shall be made within one year following the end of this contract.

53.4 PUBLIC ART LAW

In recognition of the Public Art Law, C.R.S. § 24-48.5-312, as amended, if the State determines that this project is eligible for the acquisition of artworks in accordance with this law, the Contractor agrees to participate in the art selection process as an art jury member and to cooperate with and to advise the State in working with the commissioned artist(s) for this Capital Construction Project.

53.5 ASSIGNMENT

Contractor's rights and obligations under this Contract are personal and may not be transferred or assigned without the prior, written consent of the State. Any attempt at assignment or transfer without such consent shall be void. Any assignment or transfer of Contractor's rights and obligations approved by the State shall be subject to the provisions of this Contract.

53.6 SUBCONTRACTS

Contractor shall not enter into any subcontract in connection with its obligations under this Contract without the prior, written approval of the State. Contractor shall submit to the State a copy of each such subcontract upon request by the State. All subcontracts entered into by Contractor in connection with this Contract shall comply with all applicable federal and state laws and regulations, shall provide that they are governed by the laws of the State of Colorado, and shall be subject to all provisions of this Contract.

53.7 BINDING EFFECT

Except as otherwise provided in §17.A, all provisions of this Contract, including the benefits and burdens, shall extend to and be binding upon the Parties' respective successors and assigns.

53.8 AUTHORITY

Each Party represents and warrants to the other that the execution and delivery of this Contract and the performance of such Party's obligations have been duly authorized.

53.9 CAPTIONS AND REFERENCES

The captions and headings in this Contract are for convenience of reference only, and shall not be used to interpret, define, or limit its provisions. All references in this Contract to sections (whether spelled out or using the § symbol), subsections, exhibits or other attachments, are references to sections, subsections, exhibits or other attachments contained herein or incorporated as a part hereof, unless otherwise noted.

53.10 COUNTERPARTS

This Contract may be executed in multiple, identical, original counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

53.11 ENTIRE UNDERSTANDING

This Contract represents the complete integration of all understandings between the Parties related to the Work, and all prior representations and understandings related to the Work, oral or written, are merged into this Contract. Prior or contemporaneous additions, deletions, or other changes to this Contract shall not have any force or effect whatsoever, unless embodied herein.

53.12 DIGITAL SIGNATURES

If any signatory signs this Contract using a digital signature in accordance with the Colorado State Controller Contract, Grant and Purchase Order Policies regarding the use of digital signatures issued under the State Fiscal Rules, then any agreement or consent to use digital signatures within the electronic system through which that signatory signed shall be incorporated into this Contract by reference.

53.13 MODIFICATION

Except as otherwise provided in this Contract, any modification to this Contract shall only be effective if agreed to in a formal amendment to this Contract, properly executed and approved in accordance with applicable Colorado State law and State Fiscal Rules. Modifications permitted under this Contract, other than contract amendments, shall conform to the policies issued by the Colorado State Controller.

53.14 STATUTES, REGULATIONS, FISCAL RULES AND OTHER AUTHORITY

Any reference in this Contract to a statute, regulation, State Fiscal Rule, fiscal policy or other authority shall be interpreted to refer to such authority then current, as may have been changed or amended since the Effective Date of this Contract.

53.15 EXTERNAL TERMS AND CONDITIONS

Notwithstanding anything to the contrary herein, the State shall not be subject to any provision included in any terms, conditions, or agreements appearing on Contractor's or a Subcontractor's website or any provision incorporated into any click-through or online agreements related to the Work unless that provision is specifically referenced in this Contract.

53.16 SEVERABILITY

The invalidity or unenforceability of any provision of this Contract shall not affect the validity or enforceability of any other provision of this Contract, which shall remain in full force and effect, provided that the Parties can continue to perform their obligations under this Contract in accordance with the intent of this Contract.

53.17 SURVIVAL AND CERTAIN CONTRACT TERMS

Any provision of this Contract that imposes an obligation on a Party after termination or expiration of this Contract shall survive the termination or expiration of this Contract and shall be enforceable by the other Party.

53.18 TAXES

The State is exempt from federal excise taxes under I.R.C. Chapter 32 (26 U.S.C., Subtitle D, Ch. 32) (Federal Excise Tax Exemption Certificate of Registry No. 84-730123K) and from State and local government sales and use taxes under §§39-26-704(1), et seq., C.R.S. (Colorado Sales Tax Exemption Identification Number 98-02565). The State shall not be liable for the payment of any excise, sales, or use taxes, regardless of whether any political subdivision of the state imposes such taxes on Contractor. Contractor shall be solely responsible for any exemptions from the collection of excise, sales or use taxes that Contractor may wish to have in place in connection with this Contract.

53.19 THIRD PARTY BENEFICIARIES

Except for the Parties' respective successors and assigns described in § 17.A, this Contract does not and is not intended to confer any rights or remedies upon any person or entity other than the Parties. Enforcement of this Contract and all rights and obligations hereunder are reserved solely to the Parties. Any services or benefits which third parties receive as a result of this Contract are incidental to this Contract, and do not create any rights for such third parties.

53.20 WAIVER

A Party's failure or delay in exercising any right, power, or privilege under this Contract, whether explicit or by lack of enforcement, shall not operate as a waiver, nor shall any single or partial exercise of any right, power, or privilege preclude any other or further exercise of such right, power, or privilege.

53.21 CORA DISCLOSURE

To the extent not prohibited by federal law, this Contract and the performance measures and standards required under §24-106-107, C.R.S., if any, are subject to public release through the CORA.

53.22 STANDARD AND MANNER OF PERFORMANCE

Contractor shall perform its obligations under this Contract in accordance with the highest standards of care, skill and diligence in Contractor's industry, trade, or profession.

53.23 LICENSES, PERMITS, AND OTHER AUTHORIZATIONS

Contractor shall secure, prior to the Effective Date, and maintain at all times during the term of this Contract, at its sole expense, all licenses, certifications, permits, and other authorizations required to perform its obligations under this Contract, and shall ensure that all employees, agents and Subcontractors secure and maintain at all times during the term of their employment, agency or subcontract, all license, certifications, permits and other authorizations required to perform their obligations in relation to this Contract.

53.24 INDEMNIFICATION

53.24.1 General Indemnification

Contractor shall indemnify, save, and hold harmless the State, its employees, agents and assignees (the "Indemnified Parties"), against any and all costs, expenses, claims, damages, liabilities, court awards and other amounts (including attorneys' fees and related costs) incurred by any of the Indemnified Parties in relation to any act or omission by Contractor, or its employees, agents, Subcontractors, or assignees in connection with this Contract.

53.24.2 Confidential Information Indemnification

Disclosure or use of State Confidential Information by Contractor in violation of §8 may be cause for legal action by third parties against Contractor, the State, or their respective agents. Contractor shall indemnify, save, and hold harmless the Indemnified Parties, against any and all claims, damages, liabilities, losses, costs, expenses (including attorneys' fees and costs) incurred by the State in relation to any act or omission by Contractor, or its employees, agents, assigns, or Subcontractors in violation of §8.

53.24.3 Intellectual Property Indemnification

Contractor shall indemnify, save, and hold harmless the Indemnified Parties, against any and all costs, expenses, claims, damages, liabilities, and other amounts (including attorneys' fees and costs) incurred by the Indemnified Parties in relation to any claim that any Deliverable, Good or Service, software, or Work Product provided by Contractor under this Contract (collectively, "IP Deliverables"), or the use thereof, infringes a patent, copyright, trademark, trade secret, or any other intellectual property right. Contractor's obligations hereunder shall not extend to the combination of any IP Deliverables provided by Contractor with any other product, system, or method, unless the other product, system, or method is (a) provided by Contractor or Contractor's subsidiaries or affiliates; (b) specified by Contractor to work with the IP Deliverables; (c) reasonably required in order to use the IP Deliverables in its intended manner and the infringement could not have been avoided by substituting another reasonably available product, system, or method capable of performing the same function; or (d) is reasonably expected to be used in combination with the IP Deliverables.

53.24.4 Accessibility Indemnification

Contractor shall indemnify, save, and hold harmless the state, its employees, agents and assignees (collectively, the "Indemnified Parties"), against any and all costs, expenses, claims, damages, liabilities, court awards and other amounts (including attorneys' fees and related costs) incurred by any of the Indemnified Parties in relation to Contractor's failure to comply with §§24-85-101, et seq., C.R.S., or the Accessibility Standards for Individuals with a Disability as established by the Office of Information Technology pursuant to Section §24-85-103 (2.5), C.R.S.

53.25 ACCESSIBILITY

Contractor shall comply with and the Work Product provided under this Contract shall be in compliance with all applicable provisions of §§24-85-101, et seq., C.R.S., and the Accessibility Standards for Individuals with a Disability, as established by the Governor's Office Of Information Technology (OIT), pursuant to Section §24-85-103 (2.5), C.R.S. Contractor shall also comply with all State of Colorado technology standards related to technology accessibility and with Level AA of the most current version of the Web Content Accessibility Guidelines (WCAG), incorporated in the State of Colorado technology standards.

53.25.1 The State may require Contractor's compliance to the State's Accessibility Standards to be determined by a third party selected by the State to attest to Contractor's Work Product and software is in compliance with §§24-85-101, et seq., C.R.S., and the Accessibility Standards for Individuals with a Disability as established by the Office of Information Technology pursuant to Section §24-85-103 (2.5), C.R.S.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

COLORADO PERFORMANCE BOND

Institution/Agency: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of

_____ are held and firmly bound unto **the STATE OF COLORADO** acting by and through the Institution/Agency identified above hereinafter called the "Principal Representative", in the sum of:

_____ Dollars (\$ _____)
(Written Amount) (Numerical Amount)

for the payment whereof the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated

_____ for the construction of a PROJECT
(Leave blank, to be completed by Institution/Agency)

identified above, which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION, is such that, if the Principal shall promptly, fully and faithfully perform all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract any extensions thereof that may be granted by the Principal Representative with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

AND THE SAID SURETY, for value received hereby stipulates and agrees that whenever the Principal shall be, and declared by the Principal Representative to be in default under said Contract, the State of Colorado having performed its obligations thereunder, the Surety may promptly remedy the default or shall promptly (1) Complete the Contract in accordance with its terms and conditions, or (2) Obtain a bid or bids for submittal to the Principal Representative for completing the Contract in accordance with its terms and conditions, and upon determination by the Principal Representative and Surety of the lowest responsible bidder, arrange for a contract between such bidder and the State of Colorado acting by and through the Principal Representative and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion, less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount hereinbefore set forth. The term "balance of the contract price" as herein used shall mean the total amount payable to the Principal under the Contract and any amendments thereto, less the amount properly paid by the State of Colorado to the Contractor.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the State of Colorado.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, on

(If left blank, the Institution/Agency will date this bond to match the Contract date)

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____

Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful payment for all labor and material of the contract.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

COLORADO LABOR AND MATERIAL BOND

Institution/Agency: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of

_____ are held and firmly bound unto **the STATE OF COLORADO** acting by and through the Institution/Agency identified above hereinafter called "Principal Representative," and to all subcontractors and any others who have supplied or furnished or shall supply or furnish materials, rental machinery, tools, or equipment actually used in the performance of the hereinafter identified Contract, or who have performed or shall perform labor in the performance of or in connection with said Contract, hereinafter called "Obligees" in the sum of:

_____ Dollars (\$ _____)
(Written Amount) (Numerical Amount)

together with interest at the rate of eight per cent (8%) per annum on all payments becoming due in accordance with said Contract, from the time such payments shall become due until such payment shall be made, for the payment of which, well and truly made to the Obligees, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated

_____ for the construction of a PROJECT
(Leave blank, to be completed by Institution/Agency)

identified above, which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal and the Surety shall fully indemnify and save harmless the State of Colorado and the Principal Representative from and against any and all costs and damages, including patent infringements, which either may suffer by reason of any failure or failures of the Principal promptly and faithfully to perform all terms and conditions of said Contract and shall fully reimburse and repay the State of Colorado and the Principal Representative all outlay and expense which the State of Colorado and the Principal Representative may incur in making good any such failure or failures, and further, if the Principal and his subcontractors shall duly and promptly pay for any and all labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies which have been or shall be used or consumed by said Principal or his subcontractors in the performance of the work of said Contract, and it said Principal shall duly and promptly pay all his subcontractors the sums due them for any and all materials, rental machinery, tools, or equipment and labor that have been or shall be furnished, supplied, performed or used in connection with performance of said Contract, and shall also fully indemnify and save harmless the State of Colorado and the Principal Representative to the extent of any and all expenditures which either or both of them may be required to make by reason of any failures or defaults by the Principal or any subcontractor in connection with such payments; then this obligation shall be null and void, otherwise it shall remain in full force and effect.

It is expressly understood and agreed that any alterations which may be made in the terms of said Contract or in the work to be done under said Contract, or any extension(s) of time for the performance of the Contract, or any forbearance on the part of either the State of Colorado or the Principal to any of the others, shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the Principal and the Surety have executed this Bond, , on

(If left blank, the Institution/Agency will date this bond to match the Contract date)

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____

Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful performance of the contract.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

COLORADO NOTICE TO PROCEED (DESIGN/BID/BUILD CONTRACT)

Date of Notice: _____
Date to be inserted by the Principal Representative
Date/Description of Contract Documents: _____
Institution/Agency: Red Rocks Community College
Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

Attach Notice of Code Compliance from Code Review Agent/Building Official for Documents Listed Above

To:

This is to advise you that your Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance have been received. Our issuance of this Notice does not relieve you of responsibility to assure that the bond and insurance requirements of the Contract Documents are met for the duration of the Agreement. The Agreement dated _____ covering the above described work has been fully executed.

You are hereby authorized and directed to proceed within ten (10) days from date of this Notice as required in the Agreement. Any liquidated damages for failure to achieve Substantial Completion by the date agreed that may be applicable to this Contract will be calculated using the date of this Notice for the date of the commencement of the Work.

The total completion date (including close-out) of the Project is _____ (M/D/YYYY).

By _____
State Buildings Program
(or Authorized Delegate) Date

By _____
Principal Representative
(Institution or Agency) Date

When completely executed, this form is to be sent to the Contractor by the Principal Representative.



STATE OF COLORADO
 OFFICE OF THE STATE ARCHITECT
 STATE BUILDINGS PROGRAM

NOTICE OF SUBSTANTIAL COMPLETION

Date of Substantial Completion: _____
Date to be inserted by the Principal Representative

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

TO:

Principal Representative

and

Contractor

This is to advise you that the Work has been reviewed, inspected and determined, to the best knowledge, information and belief of the Architect/Engineer, to be substantially complete as of the date noted above in accordance with the criteria outlined in Article 41 of The General Conditions of the Contract in SC-6.23 and SC-8.1 or Article 17.3 in SC-6.4 and the Specifications, including without limitation a) suitable for occupancy, b) inspected for code compliance with Building Inspection Records signed by code officials for the State, c) determined to be fully and comfortably usable, and d) fully cleaned and appropriate for presentation to the public.

A punch list of work to be completed, work not in compliance with the Drawings or Specifications, and unsatisfactory work is attached hereto, along with the Contractor's schedule for the completion of each and every item identified on the punch list specifying the Subcontractor or trade responsible for the work, and the dates the completion or correction will be commenced and finished within any period indicated in the Agreement for punch list completion prior to Final Acceptance.

Except as stated on the reverse side of this Notice of Substantial Completion, all manufacturers' warranties, other special warranties and the Contractor's one-year obligation to perform remedial work, shall commence on the Date of Substantial Completion noted above.

This Notice of Substantial Completion shall be effective and establish the Date of Substantial Completion only when fully executed by the Contractor and the Principal Representative. The Principal Representative accepts the Work as substantially complete as of the Date of Substantial Completion herein noted. The Contractor agrees to complete or correct the Work identified on the attached punch list and to do so in accordance with attached punch list completion schedule

Architect/Engineer	Date	Contractor	Date
--------------------	------	------------	------

State Buildings Program (or Authorized Delegate)	Date	Principal Representative (Institution or Agency)	Date
---	------	---	------

The responsibilities of the Principal Representative and the Contractor for security, maintenance, heat, utilities, and insurance shall be as specified in the Contract Documents or as otherwise hereafter noted:

Exceptions, if any, to the commencement of warranties shall be:

The attached final punch list consists of _____ pages, and the attached Contractor's schedule showing the dates of commencement and completion of each punch list item consists of _____ pages.

When completely executed, this form shall be sent to the Contractor and the Principal Representative with a copy to State Buildings Program.



STATE OF COLORADO
 OFFICE OF THE STATE ARCHITECT
 STATE BUILDINGS PROGRAM

COLORADO

NOTICE OF APPROVAL OF OCCUPANCY/USE

Date of Occupancy: _____
Date to be inserted by the Architect/Engineer after consultation with Principal Representative

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

Portion(s) of project for which occupancy is approved:

Type of Occupancy: Total or Partial

The items identified below if applicable must be completed with before Occupancy is approved.

Date Completed	A/E Signoff	
		1a. The Notice of Substantial Completion has been issued.
		1b. The Building Inspection Record is completely signed-off and attached.
		2a. Notification has been made to the local Fire Department concerning which portion(s) of the building will be occupied and the date(s).
		2b. Fire alarms, smoke detection systems and building fire sprinkler systems have been fully checked and are operable.
		2c. The building's fire connections must be installed and operable, if applicable.
		3. Coordination for final utility and service connections and meters (water, gas, sewer, electricity and telecommunication) has been made and systems are in full operating order.
		4. Sterilization of plumbing systems has been performed.
		5. Operational test of systems and equipment has been performed as required.
		6. Systems adjustments such as balancing, equipment operations, etc., have been performed. Reports have been submitted to the Architect/Engineer for approval.
		7. Principal Representative furnished equipment and furnishings are coordinated and placed.

		8. All elements left unfinished must be in such condition that there would be no hazard to the health or safety of the occupants.
		9. All restroom facilities must be fully functional and operable.
		10. All light fixtures must be installed and operable.
		11. All exit lights and emergency lighting systems have been checked and are operable.
		12. All windows have been glazed and hardware is available for ventilation purposes.
		13. All routes of egress must be clear of construction materials and debris at all times.
		14. There must be a means of pedestrian access to each building. Contractor must have sidewalks installed before occupancy and pedestrian barricades and other means of public protection as required.

Occupancy does not constitute acceptance of the project as being complete. It simply provides the Principal Representative the opportunity to occupy/use the project or the applicable portion thereof prior to final completion and acceptance. Occupants can expect to be impacted by the Contractor's efforts to complete the project. The Contractor would not repair any damage caused by the occupants.

Architect/Engineer

Date

Principal Representative
(Institution or Agency)

Date

State Buildings Program
(or Authorized Delegate)

Date

Contractor

Date



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF FINAL ACCEPTANCE

Date of Notice of Acceptance: _____

Date to be inserted by A/E after consultation with the Principal Representative

Institution/Agency: Red Rocks Community College

Project No./Name: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

TO:

Notice is hereby given that the State of Colorado, acting by and through the _____,
accepts as complete* the above numbered project.

_____	_____	_____	_____
State Buildings Program (or Authorized Delegate)	Date	Principal Representative (Institution or Agency)	Date

*When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF CONTRACTOR'S SETTLEMENT

Institution/Agency: Red Rocks Community College

Notice Number: _____

Project No./Title: 2023-084M22 Replace East Wing Roof, Lakewood Campus, Phase 1 of 2

Notice is hereby given that on date at address Colorado, final settlement will be made by the STATE OF COLORADO with vendor name , hereinafter called the "CONTRACTOR", for and on account of the contract for the construction of a PROJECT as referenced above.

1. Any person, co-partnership, association or corporation who has an unpaid claim against the said project, for or on account of the furnishing of labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies used or consumed by such Contractor or any of his subcontractors in or about the performance of said work, may at any time up to and including said time of such final settlement, file a verified statement of the amount due and unpaid on account of such claim
2. All such claims shall be filed with the Authority for College, Institution, Department or Agency.
3. Failure on the part of a creditor to file such statement prior to such final settlement will relieve the State of Colorado from any and all liability for such claim

Authorized Facility Manager or Authorized Individual

Name: _____
Approval Date: _____
Agency: _____
Phone: _____
Fax: _____
Email: _____

MEDIA OF PUBLICATION:

PUBLICATION DATES:

First:

Second:

(At least ten (10) days prior to above settlement date)

NOTES TO EDITOR:

Transmit two (2) copies of the Affidavit of Publication, and invoice, to:

PROJECT MANUAL
RED ROCKS COMMUNITY COLLEGE
EAST WING ROOF REPLACEMENT
PROJECT NO: DEN.2022.001044

at
RED ROCKS COMMUNITY COLLEGE
13300 WEST SIXTH AVENUE
LAKEWOOD, CO 80228

Prepared for:

Red Rocks Community College
13300 West Sixth Avenue
Lakewood, CO 80228



1720 South Bellaire Street, Suite 1200
Denver, Colorado 80222
Phone: (303) 738-0823

Publication Date: May 2023
Bid Release

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– PHASE 1”**

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END OF SECTION 00 0010

**SECTION 00 7213
GENERAL CONDITIONS FOR A ROOF PROJECT**

PART 1 - GENERAL

1.1 DRAWINGS, SPECIFICATIONS AND RELATED DATA

A. INTENT OF DRAWINGS AND SPECIFICATIONS

1. The intent of the Drawings and Specifications is that the Contractor furnish all labor, materials, equipment, and transportation necessary for the proper execution of the Work, unless specifically noted otherwise. The Contractor shall do all the Work shown on the drawings and as described in the Specifications and all incidental Work considered necessary to fully complete the Project in a substantial and acceptable manner ready for use, occupancy, and operation by the Owner.

B. DEFINITIONS

1. Whenever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be acceptable to both the singular and plural thereof:

ACT OF GOD- An earthquake, cyclone, or other cataclysmic phenomenon of nature. Rain, wind, flood or other natural phenomenon of normal intensity for the locality shall not be construed as an Act of God and no representation shall be made to the Contractor for damages to the Work resulting therefrom.

ADDENDA- Written or graphic instruments issued prior to the execution of the Agreement, which modify or interpret the Contract Documents, Drawings, and Specifications, by additions, deletions, clarifications or corrections.

AGREEMENT- The Contract executed by the Owner and Contractor covering the performance of the Work described in the Contract Documents.

BID- The offer Proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

BIDDER- Any person, firm, or corporation submitting a Bid for the Work,

CHANGE ORDER- A written amendment of the Contract between the Owner and the Contractor, authorizing an addition, deletion, or revision in the work within the general scope of the Contract Documents, or authorizing an adjustment in the contract price or contract time.

CONTRACT AMOUNT- The total monies payable to the Contractor under the terms and conditions of these Contract Documents.

CONTRACT DOCUMENTS- The contract, including Advertisement, Instructions to Bidders, Proposal, Contract, Bonds, Certificate of Insurance, Contractors Declaration, General Conditions, Supplemental General Conditions, Construction Specifications, Supplemental Specifications, Drawings, Addenda, Notice of Award, Notice to Proceed, Change Orders and those documents necessary for the Project.

CONTRACT TIME- The number of calendar days stated in the Proposal for the completion of the Work.

CONTRACTOR- The Person, Firm, or Corporation with whom the Owner has executed the Agreement.

DRAWINGS- The part of the Contract Documents that show the characteristics and scope of the Work to be performed and which have been prepared or approved by the Owner's Agent.

FIELD ORDER- Written directives issued by the Owner's Agent as authorized by the Owner, to the Contractor. Field orders may take the form of instructions or authorizations in reference to performance of the Work. Field orders may also be interpretations or clarifications of the Contract Documents. Field orders do not change the content, nor shall they be interpreted as a change in the Contract Documents.

GOVERNING AGENCY- Public authority (state, county, township, or other public agency), or their boards, commissions, departments, etc. which has statutory ownership or control of the referred to facility or area.

GROSS PROPOSAL AMOUNT- The total sum of all of the amounts obtained by extending the Contractor's Bid Prices, time the Owner's Agent Estimated Quantities; on Lump Sum Contracts, the Lump Sum Amount Bid.

INCIDENTAL TO THE PROJECT- Incidental items of Work required but not specifically listed in the Proposal and for which no separate payment will be made. The costs associated with such incidental items are to be included in the Proposal Prices Bid for Items of Work, specifically listed in the Proposal and included in the Gross Proposal Amount.

INCIDENTAL TO ITEM (AS DESIGNATED) - Incidental items of Work required but not specifically listed in the Proposal and for which no separate payment will be made. The costs associated with such Work are to be included in the Price Bid for the specific Item so designated and listed on the Proposal.

NOTICE OF AWARD- The written notice of the acceptance of the Bid from the Owner to the successful Bidder.

NOTICE TO PROCEED- Written communication issued by the Owner to the Contractor authorizing him to proceed with the Work and establishing the commencement date and completion date for the Work.

OWNER- A Public, quasi-public or authority, corporation, association, partnership, or individual for whom the Work is to be performed.

OWNER'S AGENT- A duly appointed representative of the Owner, to perform as his Agent in the administration of the Work. All business conducted by an Owner's Agent shall be in the best interest of the Owner and shall be as if conducted by the Owner.

OWNER'S REPRESENTATIVE- A duly appointed representative of the Owner delegated to assist in the administration of the Contract.

PLANS- The Drawings as prepared by the Owner's Agent or Representative which will show the characteristics and scope of the Work to be performed and which are a part of the Contract Documents.

PROJECT- The undertaking to be performed as provided in the Contract Documents.

PROPOSAL- The offer of a bidder to perform the Work described in the Contract Documents when made out and submitted on the Prescribed Competitive Sealed Proposal Forms; properly signed and guaranteed.

PUNCH LIST- A list of uncompleted work given to the Contractor by the Owner's Agent or Representative.

SHOP DRAWINGS- All drawings, diagrams, illustrations, brochures, schedules, and other data prepared by the Contractor, a subcontractor, Manufacturer, Supplier or distributor that illustrates how specific portions of the Work shall be fabricated and/or installed.

SPECIFICATIONS- A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

SUBCONTRACTOR- An individual, firm, or corporation having a direct contract with the Contractor, or with another Subcontractor, for the construction of a part of the project.

SUBSTANTIAL COMPLETION DATE- That date as certified by the Owner's Agent or Rep. when the construction of the Project, or a specified part thereof, is sufficiently completed in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purpose for which it is intended.

SUPPLIER- Any person or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site.

WORK- All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

WRITTEN NOTICE- Any notice to any party of the Agreement relative to any part of this agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party or his authorized representative on the Work.

C. ABBREVIATIONS

1. The following abbreviations, as used in the Contract Documents, have the listed meanings:

ARC	Amtech Solutions Inc. (Roof Consultant, Architect, Special Consultant)
A.S.T.M.	American Society for Testing and Materials
BOCA	Building Officials Congress of America
FM	Factory Mutual
IN	Inches

IBC	International Building Code
ICC	International Code Council
IECC	International Energy Conservation Code
IEBC	International Existing Building Code
IMC	International Mechanical Code
IPC	International Plumbing Code
LBS	Pounds
NBS	National Bureau of Standards
NFPA	National Fire Prevention Association
SPEC	Specification
SBC	Standard Building Code
UBC	Uniform Building Code
UL	Underwriters Laboratory

D. ADEQUACY OF DRAWINGS AND SPECIFICATIONS

1. Responsibility for adequacy of the design and for sufficiency of the Drawings and Specifications shall be borne by the Owner. The complete requirements of the Work to be performed under the Contract shall be set forth in Drawings and Specifications to be supplied by the Owner through the Owner's Agent as representative of the Owner. Drawings and Specifications furnished shall be in accordance with the Contract Documents and shall be true and accurate developments thereof. All information concerning utilities shown on the Drawings were obtained using the best information available. No guarantee is given or implied that the information or the location shown is absolutely correct, or that other facilities, in addition to those shown, are not present and may be encountered.

E. DIMENSIONS

1. Figured dimensions on the Drawings will be used in preference to scaling the Drawings. Where dimensions are not shown on the Drawings and are required for the Contractor to properly construct the work, he shall obtain such dimensions by **field measurements**.

F. CONFLICTS

1. If there are conflicts among the Supplemental Specifications, the Drawings and/or the Detailed Specifications, the Supplemental Specifications shall govern over both the Drawings and the Detailed Specifications; and the Detailed Specifications shall govern over the Drawings.

G. DISCREPANCIES IN DRAWINGS AND SPECIFICATIONS

1. Any discrepancies found between the Drawings and Specifications and site conditions, or any errors or omissions in the Drawings or Specifications shall be immediately reported to the Owner's Agent, who shall promptly correct such error or omission in writing. Any work done by the Contractor after his discovery of such discrepancies, errors, or omissions shall be done at the Contractor's risk.

H. SPECIFICATIONS BY REFERENCE

1. Where reference is made in the Specifications to specifications or standards of any technical society association, governmental agency, etc., it is understood and agreed that such specifications or standards are a part of the Specification as though fully repeated therein. In interpreting any specification or standard referred to, terms such as "Purchaser", "Owner," and the like shall be understood to mean the person or the organization designated as the Owner in the Contract, acting by and through its duly constituted legislative body. Terms such as "Supplier", and the like shall mean the Contractor. It is understood and agreed that the use or application of any specification or standard referred to shall not necessarily be restricted to that which may be named in the title or the specification or standard, but shall be used or applied as set forth in these specifications.
2. The Contractor shall secure copies of standards and specifications referred to herein. A copy of each specification or standard referred to is on file in the Owner's Representative's or Agent's Office. It is assumed that a Contractor bidding this Work shall be qualified and

experienced in the type of Work involved and will have access to the specifications or standards referred to.

I. COPIES OF THE DRAWINGS AND SPECIFICATIONS

1. Except as provided for otherwise, all copies of the Drawings and Specifications reasonably necessary for the execution of the Work shall be furnished to the Contractor without charge.

J. DRAWINGS AND SPECIFICATIONS AT THE JOB SITE

1. One complete set of all Drawings and Specifications and other data prepared, shall be maintained at the job site and shall be available to the Owner, Owner's Agent or Rep. at all times.

K. OWNERSHIP OF DRAWINGS AND SPECIFICATIONS

1. All original or duplicate Drawings and Specifications, and other data prepared, shall remain the property of the Owner's Agent, and they shall not be reused on other work, but shall be returned to him upon completion of the work upon demand.

1.2 LIMITATION OF LIABILITY, INDEMNIFICATION AND INSURANCE

A. LIMITATION OF LIABILITY

1. The Contractor affirmatively represents that he is skilled and experienced in the use and interpretation of Drawings and Specifications such as those included in the Bidding Documents of this Contract. Further, he also affirmatively represents that he has carefully reviewed the Drawings and Specifications of this Contract and that has based his Bid solely on these Documents, not relying in any way on any explanation or interpretation-oral or written-from any other source.
2. Unless the Contractor shall give written notice to the design professional of any ambiguities contained in the Drawings or Specifications prior to the Submission of his Bid, the Contractor agrees that he shall be conclusively presumed that the Contractor has exercised his aforementioned skill and experience and found the Drawings and Specifications sufficient and free from ambiguities, errors, or omissions for the purpose of determining his Contract Bid Price for the performance of the Work in conformity with the Drawings and Specifications.
3. Submission of a Bid without prior written notice to the Owner's Agent or any claimed ambiguities, errors or omissions shall constitute a waiver of any and all bid-price-related claims by the Contractor that are based upon any alleged ambiguities, errors, omissions or the like in the Drawings or Specifications.

B. INDEMNIFICATION

1. See Owner and Contractor's Agreement.

C. QUALIFICATION OF INSURANCE COMPANIES

1. All insurance required under these Specifications shall be furnished by an insurance company qualified to do business in the state in which the Work is located and shall have a rating of "A" as listed in the current issue of A.M. Best's "Key Rating Guide".

D. WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

1. See Owner and Contractor's Agreement.

E. COMPREHENSIVE GENERAL LIABILITY INSURANCE

1. See Owner and Contractor's Agreement.

F. COMPREHENSIVE MOTOR VEHICLE LIABILITY INSURANCE

1. The Contractor shall procure and maintain during the life of this Contract Comprehensive Motor Vehicle Liability Insurance in an amount not less than \$1,000,000.00 for combined single limit each occurrence. The policy shall include coverage for owned, non-owned, and hired motor vehicles.

G. UMBRELLA EXCESS LIABILITY INSURANCE

1. See Owner and Contractor's Agreement.
- H. ADDITIONAL INSURED
1. The Owner will be named as an additional insured on all required insurance.
- I. IMMUNITY
1. Any immunity of the Owner shall not be a defense from the insurance carrier.
- 1.3 ROOF CONSULTANT - OWNER - CONTRACTOR RELATIONS AND AUTHORITY
- A. CONTRACTOR'S AUTHORITY AND RESPONSIBILITY
1. The Contractor shall supervise and direct the Work efficiently and with his best skill and attention. He will be held solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor will be responsible for ensuring that the finished Work complies accurately with the Contract Documents.
 2. The Contractor's attention is directed to the "Safety and Health Regulation for Construction: (and subsequent amendments) promulgated by the United States Department of Labor, identified as OSHA Safety and Health Standards General Industry Standards, covering Safety and Health Standards for construction. These rules and regulation are incorporated by reference in these Contract Documents and all Work under this Contract shall be performed in compliance with them.
- B. CONTRACTOR'S SUPERINTENDENT
1. A qualified superintendent who is acceptable to the Owner's Agent shall be maintained on the Work and at the job site at all times work is commencing and shall give efficient supervision to the Work until its completion. The superintendent shall have full authority to act in behalf of the Contractor.
- C. CONTRACTOR'S RIGHT TO SUSPEND WORK OR TERMINATE CONTRACT
1. The Contractor may suspend Work or terminate the Contract upon 10 days written notice to the Owner and the Consultant, for any of the following reasons:
 - a. If an order of any court, or other public authority caused the Work to be stopped or suspended for a period of 6 months through no act or fault of the Contractor or his employees.
 - b. If the Owner should fail to make any progress payments within 45 days after an Owner's Agent verification for payment has been issued or agreed upon.
- D. SUSPENSION OF WORK BY THE OWNER
1. The Work, or any portion thereof, may be suspended at any time by the Owner for his convenience, provided that he gives the Contractor five days (5) written notice of said suspension. The Contractor shall resume the Work upon written notice from the Owner. If the Owner does not give written notice to resume work within 30 (thirty) days of the date of the notice of suspension, the Contractor may abandon that portion of the Work so suspended and shall be entitled to payment in accordance with these specifications.
- E. OWNERS RIGHT TO CORRECT DEFICIENCIES
1. Upon failure of the Contractor to perform the Work in accordance with the Contract Documents, including any requirements with respect to the schedule of completion and after five (5) days written notice to the Contractor and the receipt of a written statement of deficiencies from the Owner's Agent, the Owner may, without prejudice to any other remedy he may have, correct such deficiencies. The Owner may charge the cost of such corrective work to the Contractor.
- F. OWNER'S RIGHT TO TERMINATE CONTRACT AND COMPLETE THE WORK
1. In the event of any default by the Contractor, and upon receiving written notice from the Owner's Agent certifying cause for such action, the Owner shall have the right to terminate the employment of the Contractor after giving ten (10) days termination, the Owner may take possession of the Work and of all materials, tools, and equipment thereon and may

finish the Work by whatever method and means he may elect. It shall be considered default by the Contractor whenever he shall:

- a. Declare bankruptcy, becomes insolvent, or assigns his assets for the benefit of his creditors.
- b. Disregards or violates important provisions of the Contract Documents or Owner's Agent instructions or fails to make prompt payment thereof.

2. The Owner shall have the right to terminate for convenience (i.e. without cause) upon 15 days written notice.

G. AUTHORITY OF OWNER'S AGENT

1. No Agent of the Owner shall have power to revoke, alter, enlarge, or relax the stipulations or requirements of the Specifications without the Owners prior approval.

H. OWNER'S ROOF CONSULTANT RESPONSIBILITY AND AUTHORITY

1. The Roof Consultant shall assist the Owner in decisions pertaining to questions which may arise as to the quality and acceptability of the materials furnished, Work performed, rate of progress of Work, interpretation of Drawings and Specifications, and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.
2. The Owner's Roof Consultant will not be responsible for the construction means, methods, controls, techniques, sequences, procedures, or construction safety.

I. ROOF CONSULTANT'S DECISIONS

1. All claims of the Contractor shall be presented to the Roof Consultant for his assistance in the Owner's decision, which shall be made in writing within a reasonable amount of time. The Owner's decision shall then be final and conclusive.

J. SUSPENSION OF WORK BY ROOF CONSULTANT

1. The Roof Consultant shall have the authority (with Owner's permission) to suspend the Work, wholly or in part, for such period or periods as he may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for prosecution of the Work, or failure on the part of the Contractor to carry out the provisions of the Contract or to supply materials meeting the requirements of the Specifications. The Contractor shall not suspend operation without the Roof Consultant's Written Permission.
2. Should it become necessary to suspend work, Contractor shall pay for the:
 - a. Removal of all material from the job site.
 - b. Placement of all material into a secured and bonded type warehouse.
 - c. Costs of material storage until such time as approval from the Owner is given to resume.
 - d. Costs of installing water cutoffs that are expected to withstand protracted periods of exposure.

K. RIGHTS OF VARIOUS INTEREST

1. Whenever Work is being done by Owner's forces or by other Contractors adjoining to Work covered by this Contract, the respective rights of the various interests involved shall be established by the Roof Consultant and the Owner to secure the completion of the various portions of the Work in general harmony.

1.4 CONTRACT EXECUTION

A. ASSIGNMENT OF THE CONTRACT

1. Neither the Contractor nor the Owner shall sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, there under, without written consent of the other party involved.

B. NOTICE OF AWARD

1. Award of the Contract, if it is awarded, will be to the lowest responsible, responsive Bidder whose proposal complies with all requirements prescribed and whose Bid is in the Owner's best interest. The Owner shall have the right to refuse any and all bids as he sees fit. The

award, if made, will be made within the number of days specified in the Bidding Documents (if specified), after the scheduled closing time for receipt of the bids.

2. The Contract shall be deemed to have been awarded after the Owner has accepted the Proposal and a formal "Notice to Proceed" has been served upon the intended awardee by the Owner. Notice placed in the United States Mail properly addressed to the address given by the Bidder in his Proposal shall constitute valid service.

C. NOTICE TO PROCEED

1. Following execution of the Agreement by the Owner, a written Notice to Proceed with the Work shall be given to the Contractor. From then on the Contractor shall begin and shall prosecute the Work regularly without interruption thereafter (unless otherwise directed in writing by the Owner), with such forces as to secure the completion of the Work within the Contract Time.

D. CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER AND ROOF CONSULTANT

1. After receipt of the Notice to Proceed from the Owner and prior to the start of construction, the Contractor shall notify the Owner and Roof Consultant, when the Work is to commence. The Owner shall be allowed seventy-two (72) hours, if needed, to arrange for inspection and testing of the Work.

E. CONTRACTOR'S RESPONSIBILITY TO NOTIFY GOVERNING AGENCIES

1. The Contractor shall notify all governing agencies and all concerned utility companies 48 hours prior to the start of construction. Additional notification shall be given by the Contractor to all the above mentioned parties 48 hours prior to crossing, connecting to, or working in the vicinity of any right-of-way utility owned or controlled by any of the concerned parties.

F. SEPARATE CONTRACTS

1. The Owner may let other contracts in connection with the Work of the Contractor to other trades if the Project so requires. The Contractor shall cooperate with the other Contractors with the storage of materials and execution of their work. It shall be the Contractor's responsibility to inspect all Work by other Contractors affecting his Work and to report to the Roof Consultant any irregularities that will not permit him to complete his Work in a satisfactory manner. His failure to notify the roof Consultant of such irregularities shall indicate the Work of other Contractors has been satisfactorily completed to receive his Work.

G. SUBCONTRACTS

1. At the time specified by the Bidding and Contract Documents, or when requested by the Roof Consultant, the Contractor shall submit in writing to the Owner for the Owner's approval, the names of the Subcontractors proposed for scheduled Work. Subcontractors may not be changed except at the request, or with the approval of, the Owner.
2. The Contract Documents shall not be construed as creating any contractual relation between any Subcontractor and the Owner. The Contractor shall bind every Subcontractor by the terms of the Contract Documents.

H. ORAL AGREEMENTS

1. No oral agreement, order, objection, claim or notice by any party shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act what-so-ever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification. **Get agreements in writing!**

I. CHANGES IN THE WORK

1. The Owner may, as the need arises, order changes in the Work throughout additions, deletions, or modifications without invalidating the Contract. The Owner reserves the right to delete or add work costing up to 30% of the original total Contract Amount without penalty or changes in the Unit Prices shown in the Proposal. Payment and time of

completion affected by such changes shall be adjusted at the time of ordering such changes.

• EXTRA WORK

• New and unforeseen items of work found to be necessary, and which cannot be covered by any item or combination of items for which there is a Contract Price, shall be classed as Extra Work. The Contractor shall do such Extra Work and furnish such materials as may be required for the proper completion or construction of the whole Work contemplated, upon written notice from the Owner as approved by the Roof Consultant. In the absence of such written notice, no claim for Extra Work shall be considered. Extra Work shall be performed in accordance with these specifications; or special provisions shall be done in accordance with the best practice as approved by the Consultant. Extra Work as required in an emergency to protect life and property shall be performed by the Contractor as required.

• TIME FOR COMPLETION AND LIQUIDATION DAMAGES

• It is hereby understood and mutually agreed by and between the Contractor and Owner that the date of beginning and the time for completion as specified in the Bidding Documents are **ESSENTIAL CONDITIONS** of this Contract; and it is further mutually understood and agreed that the Work embraced in this Contract shall be commenced on a date to be specified in the "Notice to Proceed". The Contractor agrees that said Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion, in an acceptable manner thereof, within the time specified.

• The Contractor affirms that the time for completion of the Work described here is a reasonable time for completion of the Work and that he has sufficient plan, equipment and man power to accomplish the Work within the specified time for completion. It is further agreed that **TIME IS OF THE ESSENCE** of each and every portion of this Contract and of Individual Specification Sections wherein a definite and certain length of time is fixed for the performance of any act what so ever; and where under the Contract an additional time is allowed for the completion of any Work, the new time limit fixed by such extension shall become the essence of this Contract.

• WORK IS TO BE PERFORMED WITHIN TIME LIMITS ESTABLISHED IN THE BIDDING AND CONTRACT DOCUMENTS OR IN THE "NOTICE TO PROCEED." SHOULD THE WORK NOT BE COMPLETED BY THE SPECIFIED DATE, THE CONTRACTOR FURTHER AGREES TO COMPENSATE THE OWNER AT THE RATE OF **500 DAY.** **THIS** COMPENSATION WILL BE DEDUCTED FROM THE RETAINAGE HELD BY THE OWNER.

• EXTENSION OF THE CONTRACT TIME

• A delay beyond the Contractor's control, occasioned by an Act Of God, or an act or omission on the part of the Owner, or by strikes, lockouts, fire, or similar occurrences, may entitle the Contractor to an extension of time by which to complete the Work, as determined by the Roof Consultant. However, the Contractor shall within five (5) days after the beginning of such delay, give written notice to the Owner of the cause of said delay.

1.5 USE OF LANDS AND PROPERTY

A. PERMITS AND LICENSES

1. The Contractor shall procure and pay for all permits, licenses and fees necessary for the execution of Work.

B. LANDS BY THE OWNER

1. The Owner shall provide the lands upon which the Contractor and the Work of the Contract is to be performed and/or which is to be used for the rights-of-way or access all as shown on the Drawings. Any delay in furnishing these lands by the Owner shall be deemed proper cause of adjustment in the Contract Amount and in the Time of Completion.

C. LANDS BY CONTRACTOR

1. Any additional land and access thereto not shown on the Drawings that may be required for temporary construction procedures or facilities or for storage of materials shall be procured and provided by the Contractor with no liability to the Owner.
2. The Contractor shall confine his apparatus and storage of materials and operation of his workers to those areas described in the Drawings and Specifications and such additional areas which he may provide as approved by the Owner and Roof Consultant.

D. PRIVATE PROPERTY

1. The Contractor shall not enter upon private property for any purpose without obtaining written permission. Copies of such written permission shall be furnished to the Owner and Roof Consultant upon request. He shall be responsible for the preservation of all private property, trees, monuments, fences, etc., along the adjacent street, right-of- way, etc., and shall use every precaution necessary to prevent damage or injury thereto. He shall use suitable precautions to prevent damage to pipes, conduits, and other structures.

E. PATENTS AND ROYALTIES

1. If any design, device, material, or process covered by letters, patents or copyrights is used by the Contractor, he shall provide for such use by legal agreement with the Owner of the patent or copyright, or by a licensee of such Owner, and shall indemnify and save harmless the Owner of the Project from any and all loss or expense on account thereof, including its use by the Owner of the Project.

F. LAWS TO BE OBSERVED

1. The Contractor shall give all notices and comply with all federal, state, and local laws, ordinances, and regulations, in any manner affecting the conduct of the Work, and all such orders and decrees as exist or may be enacted by bodies or tribunals having any jurisdiction or authority over the Work, and shall indemnify and save harmless the Owner against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation order, or decree, whether by himself, his employees or Subcontractors.

1.6 WORKMANSHIP AND MATERIALS

A. QUALITY OF EQUIPMENT AND MATERIALS

1. In order to establish standards of quality, the Roof Consultant and Owner have, in the Specifications, referred to certain products by name and catalog number. This procedure is not to be construed as eliminating from competition other manufacturers where fully suitable in design. However, if the Contractor does desire to make substitutions, he shall observe the following:
 - a. The Contractor shall furnish the complete list of proposed desired substitutions prior to submitting his Proposal, together with such engineering, catalog and performance history data as the Owner and Consultant may require.
 - b. The Contractor shall abide by the Owner's decision and judgement when proposed substitute materials or items of equipment are judged not acceptable and shall furnish those items, materials and/or equipment as specified.
 - c. All proposed substitutions shall be submitted to the Owner for review prior to Bid opening in a manner so as to allow for review.
 - d. Approved changes must be in writing and no substitutes will be used unless the Contractor receives written approval from the Owner.

B. CHARACTER OF WORKERS

1. The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any subcontractors or persons employed by the subcontractors. All workers must have sufficient knowledge, skill and experience to perform properly the Work assigned to them. Any foreman or workman employed by the Contractor or Subcontractor who, in the opinion of the Roof Consultant, does not perform his work in a skillful manner, or appears to be incompetent or to act in a disorderly or intemperate manner shall, at the written request of the Roof Consultant be immediately removed from the job site and shall

not be employed again in any portion of the Work without the approval of the Roof Consultant.

C. MATERIALS FURNISHED BY THE CONTRACTOR

1. All materials used in the Work shall meet the requirements of the respective Specification and shall be new materials and no material shall be used until it has been approved by the Owner. All materials not otherwise specifically indicated shall be furnished by the Contractor.

1.7 PUBLIC SAFETY

A. COMPLIANCE WITH APPLICABLE STANDARDS AND REGULATIONS

1. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in conjunction with the Work. Contractor shall take all the necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to: All employees on the Work and to other persons who may be affected thereby; all the Work and all the materials or equipment to be incorporated therein whether in storage on or off the site; and other property at the site or adjacent thereto including trees, shrubs, lawns, walks, pavements, roadways, and those structures and utilities not designed for removal, relocation or replacement in the course of construction.
2. The Contractor shall comply with all applicable **laws, ordinances, rules, regulations, and orders** of any **public body** having jurisdiction. The Contractor shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection. The Contractor shall notify the Owner of adjacent utilities and properties when prosecution of the Work may affect those items.

B. PROTECTION OF PERSONS AND PROPERTY

1. In the event the Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and Consultant in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor, if in fact the material is asbestos or PCB and has not been rendered harmless. The Work in the affected areas shall be resumed in the absence of asbestos or PCB, or when it has been rendered harmless, by written agreement of the Owner and Contractor, or in accordance with final determination by the Consultant on which arbitration has not been demanded, or by arbitration under other articles. The Contractor shall not be required to perform without consent any Work relating to asbestos abatement or PCB.
2. To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Consultant, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material is asbestos or PCB and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Owner, anyone directly or indirectly employed by the Owner or anyone for whose acts the Owner may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party; indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Subparagraph.

C. WARNING SIGNS AND BARRICADES

1. The Contractor shall provide adequate signs, fences, barricades, signal lights and watchmen, and shall take all necessary precautions for the protection of the Work and safety of the public. Said warning and protection devices shall comply with the requirements of the governing agencies involved.

D. PUBLIC SAFETY AND CONVENIENCE

1. The Contractor shall at all times conduct his Work to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the Work, and to insure the protection of persons and property in a manner satisfactory to the Owner and proper governmental authority. All local, state and national laws, ordinances, rules, and regulations pertaining to the kind, use and loading of all apparatus, equipment, and material shall be complied with as well as all other reasonable precautions required by the Owner, to insure safe working conditions. Fire hydrants, water supply valves, and gas valves on or adjacent to the Work shall be accessible at all times.
2. The Contractor has sole responsibility for the proper construction of the Project and is solely responsible for the safety in, on and about the Job site; control of the safety or adequacy of any equipment, building component, scaffolding, sheeting, bracing, forms, or other Work aids; and superintending the Work. Construction review or inspection by the Owner shall not relieve the Contractor from the above responsibilities.

E. WORK DURING AN EMERGENCY

1. The Contractor shall perform any Work and shall furnish and install any materials and equipment necessary during an emergency endangering life and property. In all cases he shall notify the Roof Consultant and Owner of the emergency as soon as possible, but he shall not wait for instructions before proceeding to properly protect both life and property.

1.8 MEASUREMENT AND PAYMENT

A. BREAKDOWN OF CONTRACT AMOUNT

1. In cases where a Lump Sum Contract Amount forms the basis for payment under the Contract, the Contractor shall, within ten (10) days of receipt of the Notice to Proceed, submit a complete breakdown of the Contract Amount in the form of a Schedule of Values. The breakdown shall show the value assigned to each part of the Work, including an allowance for profit and overhead. Upon approval of the breakdown by the Owner, it shall be used as a basis for all requests for payment. The approved breakdown will not be considered as fixing a basis for additions to or deductions from the Contract Amount.
2. In cases where the Unit Prices form the basis for payment under the Contract, the summation of the amounts determined by multiplying the total number of each of the completed units of Work by the Unit Price stated in the Proposal for that item shall be used as the basis for payment requests. The number of units contained in the Proposal is approximate only, and final payment will be made for the actual number of units that are incorporated into or made necessary by the Work covered in the Contract.

B. REQUESTS FOR PAYMENT

1. Periodically (at the specified times, but not more than once a month), the Contractor shall submit to the Owner, a request for Payment for Work performed. A copy of the Contractor's Declaration (in a form attached at the rear of this division) shall be completed, signed and attached to each request for Payment. Also, to be included shall be any Waivers of Lien required from subcontractors and suppliers as well as any other periodic reports required (such as monthly payrolls, etc.).
2. In cases where a Lump Sum forms the basis for payment under the Contract, the Request for Payment shall indicate the Work completed to date on the items listed in the approved "Schedule of Values". If the Request for Payment includes materials and equipment, stored on the site, it shall be accompanied by **PAID INVOICES** from the manufacturer or supplier, or such other information satisfactory to the Owner.
3. In cases where Unit Prices form the basis for payment under the Contract, the Request for Payment shall state the Units of Work completed to date. If the Request for Payment includes materials and equipment stored at the site, it shall be accompanied by invoices from the manufacturer or supplier or such other information as deemed satisfactory to the Owner.
4. In cases where Lump Sum Items are included in a Unit Price Contract, the Contractor shall be paid for the percentage of Work completed, as determined by the Owner and assisted by the Roof Consultant.

C. ROOF CONSULTANT'S VERIFICATION FOR PAYMENT

The Owner's order for extra Work shall be in the form of a Change Order to be signed by both the Owner and Contractor and shall specify any extension of the Contract Time and one of the following methods of payment:

- a. Unit Price or combinations of unit prices which formed the basis of the original Contract.
- b. A Lump Sum Price based on the Contractor's estimate approved and accepted by the Owner.
- c. Actual Cost of Direct Work by the Contractor plus 15% mark-up for overhead and profit. Actual Cost of Subcontract Work plus 5% mark-up for overhead and profit. Actual costs are assigned the following:
 - 1) Labor costs shall be the amount shown on the Contractor's payroll plus benefits (workers compensation, taxes, union benefits, etc.)
 - 2) Material costs shall be the net price paid by the Contractor to his supplier for that material delivered to the site, verified by invoices.
 - 3) Equipment rental shall be the actual costs incurred for necessary equipment actually used for the Work. All costs shall be in accordance to the invoices provided by the rental company plus those fuel and lubricant rates as certified by the rental company.

1.10 COMPLETION AND ACCEPTANCE OF THE WORK

A. GUARANTEES

1. The Contractor shall warrant all materials and workmanship furnished for a period of two (2) years for the date placing the Work in service regardless of the terms of any manufacturer or supplier warranties, which shall be in addition to the Contractor's warranty if same exceeds two years.

B. USE OF COMPLETED PORTIONS OF THE WORK

1. The Owner shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding that the time for completing the entire Work or such portions may not have expired; but such taking possession and use shall not be deemed as acceptance of any Work not completed in accordance with the Contract Documents.
2. If such prior use increases the cost of, or delays, the completion of uncompleted Work or causes refinishing of completed Work, the Contractor shall be entitled to such extra compensation, or extension of time or both as the Owner, Contractor and Consultant resolve.

C. RELEASE OF LIENS

1. The Contractor shall deliver to the Owner a complete release of all liens or claims arising out of this Contract before any retained percentages or the final request for payment is paid. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner such amounts as the Owner may have been compelled to pay in discharging such liens or claims, including all costs and a reasonable attorney's fee.

D. ACCEPTANCE AND FINAL PAYMENT

1. When the Contractor shall have completed all the Work in accordance with the terms of the Contract Documents, the Contractor shall submit to the Owner the following items for review.
 - a. A signed Contractor's Declaration that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents.
 - b. A signed Contractor's Affidavit on a form acceptable to the Owner.
 - c. Release of Liens described above.
 - d. Waiver of Liens from all suppliers and Subcontractors indicating that all debts incurred have been paid in full.

- e. Letters of Release approving final payment to the Contractor from all parties concerned with the Work. This may include utilities, surety companies, municipalities, etc.
 - 2. The Consultant shall assist the Owner in verifying these items if so requested and assist in verifying the Final Contract Amount which shall be the Contract Amount plus all extra work additions that have been approved and less all approved deletions or deductions, if requested.
 - 3. Thereafter, the Owner shall review all data supplied for conformance with Contract requirements and when approved will accept the Work, release the Contractor (any legal rights of the Owner, required guarantees, and correction of Faulty Work after Final Payment) and make final payment to the Contractor.
- E. CORRECTION OF FAULTY WORK AFTER FINAL ACCEPTANCE
- 1. The approval by the Owner and Roof Consultant of the Final Request for Payment, and the making of the final payment by the Owner shall not relieve the Contractor of responsibilities for faulty materials or workmanship.
 - 2. The Owner shall promptly give the Contractor notice of any faulty materials or workmanship discovered within the first 2 years after the date of written acceptance of the Work; and the Contractor shall promptly replace any such defects. The Roof Consultant may assist in resolving or deciding all conflicts of fact regarding such defects.

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

END OF SECTION 00 7213

1.6 USE OF PREMISES

- A. General: Each Contractor shall have limited use of premises for construction operations, including use of Project site, during construction period. Each Contractor's use of premises is limited only by Owner's/Tenant's occupancy and right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine constructions operations to building areas where work is indicated and immediately surrounding site areas, as agreed upon by Owner/Tenant.
- C. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.7 OWNER'S/TENANT'S OCCUPANCY REQUIREMENTS

- A. The site and building will be occupied during entire construction period. Cooperate with Owner/Tenants during construction operations to minimize conflicts and facilitate usage. Perform the Work so as not to interfere with users' 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.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect users' operations.

1.8 WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed outside the existing building during normal business working hours of:
 - 1. 7:00 a.m. to 7:00 p.m., Monday through Friday, except otherwise indicated.
 - 2. Weekend Hours: 8:00 a.m. to 5:00 p.m. Contractor must coordinate with Owner and given approval for both weekend work and interior access if required.
 - 3. Early Morning Hours: Comply with City Ordinances.
 - 4. Hours for Utility Shutdowns: Only with Owner's written permission.
 - 5. Interior Work: As scheduled with Owner and Tenant.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by users or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Consultant and Owner not less than four (4) days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 DESIGN NOTES

- A. Base Bid:
 - 1. This project is for the roof replacement of existing in-scope, low-slope roof areas on the Red Rocks Community College East Wing Building (Phase 1) which includes the removal of the existing ballasted roof systems down to the corresponding roof decks (including lightweight insulating concrete removal) and installation of a new 90-mil fully adhered black EPDM membrane over new coverboard, insulation, vapor retarder, and substrate board with new EPDM flashings and new sheet metal (fascia metal, parapet cap, counter-flashings, roof

jacks, etc.) as shown per deck assemblies on drawings. Refer to drawing sheet R-101 for the full project scope and R-102 for roof assembly details.

B. Deductive Alternate #1:

1. Install a fully adhered 60-mil EPDM membrane in lieu of the 90-mil EPDM membrane for all in-scope roof areas. The remainder of the base bid applies.

C. Deductive Alternate #2:

1. Leave tapered lightweight insulating concrete (LWIC) in place and repair LWIC surface as needed to install new roof system. Omit the 1/8-inch taper in the base bid and install a mechanically attached vented base sheet over the prepared LWIC. Install the remainder of the base bid roof assembly (fully adhered R-30 insulation, cover board, and 90-mil EPDM membrane).

D. Additive Alternate #3:

1. Installation of a new continuous sheet metal trim along the two (2) radial sides of the standing seam metal radial roof.

END OF SECTION 01 1000

**SECTION 01 2500
SUBSTITUTION PROCEDURE**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and Project Manual as proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability (discontinued) of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required, in order to, meet other Project requirements but may offer advantage to the Owner by ways of significant cost reduction, reduction of schedule, and improved life-cycle durability.

1.4 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use like AIA or Industry form.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product, fabrication, or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's

- letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Designers Action: If necessary, the Designer will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Designer will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Designer's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Designer does not issue a decision on use of a proposed substitution within time allocated.
 - c. All time spent by the Designer used for evaluating the proposed substitution can be back charged to the contractor's reduction of retainage draw application.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Designer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Designer will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides significant reduction of cost or project duration.
 - h. Requested substitution provides meets or exceeds specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Designer will consider requests for substitution if received within 7 days prior to bid date, or by the question's deadline, whichever comes first. Requests received after that time may be considered or rejected at discretion of Designer.
1. Conditions: Designer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.

- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Substitution request is fully documented and properly submitted.
- e. Requested substitution will not adversely affect Contractor's construction schedule.
- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides significant reduction of cost or project duration.
- j. Requested substitution provided meets or exceeds specified warranty.
- k. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 2500

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Designer will issue a Change Order for signatures of Owner and Contractor on AIA Document G701 or like industry form.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Designer may issue a Construction Change Directive on AIA Document G714 or like industry form. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 2600

**SECTION 01 2900
CONTRACT PAYMENT PROCEDURES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Total Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment and percent of work complete.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with Continuation Sheets.
 - b. Submittals Schedule.
 - c. Contractor's Construction Schedule.
 - 2. Submit the Schedule of Values to Designer at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one-line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Designer.
 - c. Designer's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Submit draft of AIA Document G703 Continuation Sheets or like industry form.
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
 - 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
 - 6. Contingency Allowances: Provide a separate line item in the Schedule of Values for each contingency allowance.
 - 7. Complete each item in the Schedule of Values and Applications for Payment.

8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Designer and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment or like industry forms.
- D. Payment Application Forms: Use AIA forms or like industry forms that contain the minimal required information.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Designer will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F. Transmittal: Submit 1 signed and notarized original copy of each Application for Payment to Designer by a method ensuring receipt within 24 hours. Electronic submissions will be accepted.
- G. Waivers of Mechanic's Lien: Prior to the release of the payment the contractor shall submit with each Application for Payment, waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Products list.
 5. List of Contractor's staff assignments.
 6. Copies of building permits.
 7. Initial progress report.
 8. Report of preconstruction conference.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.
 11. Data needed to acquire Owner's insurance.
 12. Initial settlement survey and damage report if required.
- I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
- J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims" or like industry form.
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens" or like industry form.
 6. Evidence that claims have been settled.
 7. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 2900

- 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. Construction waste management and recycling.
- p. Parking availability.
- q. Office, work, and storage areas.
- r. Equipment deliveries and priorities.
- s. First aid.
- t. Security.
- u. Progress cleaning.
- v. Working hours.
- w. Minutes: Contractor will record and distribute meeting minutes.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. Procedure: Immediately on discovery of the need for information/interpretation of the Contract Documents, and if not possible to request information/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 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 Designer.
 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:
 - a. Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
 - b. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

- C. Designer's Action: Designer will review each RFI, determine action required, and return it. Allow three working days for Designer's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
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. Incomplete RFIs or RFIs with numerous errors.
 2. Designer's action may include a request for additional information, in which case Designer's time for response will start again.
 3. Designer'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 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Designer in writing within 5 days of receipt of the RFI response.
- D. On receipt of Designer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Designer within three days if Contractor disagrees with response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly. Use log with not less than the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Designer.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Designer's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 3100

**SECTION 01 3200
CONSTRUCTION PROGRESS DOCUMENTATION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Construction Schedule.
 - 2. Daily construction log.
 - 3. Field condition reports.
 - 4. Special reports.

1.3 SUBMITTALS

- A. Contractor's Construction Schedule: Submit electronic PDF file format of the initial schedule, large enough to show entire schedule for entire construction period.
- B. Daily Construction Log: Have available for review at Status Meetings.
- C. Field Condition Reports: Submit electronic PDF file format document at time of discovery of issue/differing conditions.
- D. Special Reports: Submit electronic PDF file format document at time of unusual event.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with industry procedures for "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice of Award to date of Final Completion. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each roof level or separate work area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 5 days, unless specifically allowed by Designer.
 - 2. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
 - 3. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Designer's administrative procedures necessary for certification of Substantial Completion.

- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
 - 1. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Use of premises restrictions.
 - e. Seasonal variations.
 - f. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT / BAR CHART)

- A. Gantt / Bar Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt / bar type chart, Contractor's Construction Schedule within 15 days of date established for the Notice of Award. Base schedule on the Preliminary Construction Schedule, including updates and feedback received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 REPORTS

- A. Daily Construction Log: Prepare a logbook that contains a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - 4. Equipment at Project site.
 - 5. Material deliveries.
 - 6. High and low temperatures and general weather conditions.
 - 7. Accidents.
 - 8. Meetings and significant decisions.
 - 9. Unusual events (refer to special reports).
 - 10. Stoppages, delays, shortages, and losses.
 - 11. Emergency procedures.
 - 12. Orders and requests of authorities having jurisdiction.
 - 13. Change Orders received and implemented.
 - 14. Construction Change Directives received and implemented.
 - 15. Services connected and disconnected.
 - 16. Substantial Completions authorized.
- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents and Project Manual, prepare and submit a detailed report of the issue/difference. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule with Application for Payment.
- B. Distribution: Distribute copies of approved schedule to Designer Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 3200

**SECTION 01 3233
PHOTOGRAPHIC DOCUMENTATION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
1. Preconstruction photographs.
 2. Periodic construction progress photographs.

1.3 SUBMITTALS

- A. Key Plan:
1. Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph and videotape. Indicate elevation or story of construction. Include same label information as corresponding set of photographs and videotape.
- B. Construction Photographs:
1. Submit one PDF format file of each photographic view within seven days of taking photographs. The file name will start with the following:
 - a. YYYYMMDD-Contractor Name
 2. Identification: On each PDF file, provide the following information:
 - a. Name of Project.
 - b. Name of Designer.
 - c. Name of Contractor.
 - d. Date and time photograph was taken if not date stamped by camera.
 - e. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - f. Unique sequential identifier.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images:
1. Provide images in uncompressed JPG format, produced by a digital camera with minimum sensor size of 4.0 megapixels, and at an image resolution of not less than 1024 by 768 pixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. General:
1. Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted. The lead in picture for a series of pictures shall provide the location and direction of pictures being taken within the work area.
- B. Digital Images:

1. Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Preconstruction Photographs:
1. Before starting construction, take digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Designer.
 2. Take photographs to show existing conditions adjacent to property before starting the Work.
 3. Take photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Periodic Construction Photographs:
1. Take digital photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

END OF SECTION 01 3233

**SECTION 01 3300
SUBMITTAL PROCEDURES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, Manufacturers' Instructions, and other submittals.

1.3 SUBMITTAL PROCEDURES

A. General:

- 1. Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Designer for Contractor's use in preparing submittals.

B. Coordination:

- 1. Coordinate preparation and processing of submittals with performance of construction activities.
- 2. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- 3. 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.
- 4. Designer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Submittals:

- 1. All submittals, except samples, will be submitted electronically using a PDF file format. Each submittal will be broken apart by the Division number at a file level. For example: all Division 05 will be one file and Division 07 will be a different file.

D. Processing Time:

- 1. Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Designer's receipt of submittal on the following work day. 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.
- 2. Initial Review:
 - a. Allow 14 work days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Designer will advise Contractor when a submittal being processed must be delayed for coordination.
- 3. Intermediate Review:
 - a. If intermediate submittal is necessary, process it in same manner as initial submittal.
- 4. Resubmittal Review:
 - a. Allow 14 work days for review of each resubmittal.

E. Identification:

- 1. Place a title block on each submittal for identification.
- 2. Indicate name of firm or entity that prepared each submittal on title block.
- 3. Provide a space beside title block to record Contractor's review and approval markings and action taken by Designer.

4. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Designer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address 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., 06 1000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06 1000.01.A).
 - 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. Other necessary identification.
- F. Deviations:
 1. Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- G. Resubmittals:
 1. Make resubmittals in same form and electronic PDF files as initial submittal.
 2. Note date and content of previous submittal.
 3. Note date and content of revision on title block and clearly indicate extent of revision.
 4. Resubmit submittals until they are marked "Approved" or "Approved as Corrected."
- H. Distribution:
 1. 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.
- I. Use for Construction:
 1. Use only final submittals with mark indicating "Approved" or "Approved as Corrected" taken by Designer.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General:
 1. Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product List:
 1. Prepare list of products that Contractor intends to utilize for Project, based on Part 2 for each Specification Section. List by paragraph and subparagraph number every Product included in Part 2 of each Section. For Product not required for the Work, indicate "Not Applicable" or "N/A" to indicate Contractor believes Product is not required to comply with Contract Documents and manufacturer's written installation instructions.
- C. Product Data:
 1. Collect information into a single submittal for each element of construction and type of product or equipment.

2. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
3. Indicated or mark each submittal to show which products and options are applicable.
4. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Mill reports.
 - g. Standard product operation and maintenance manuals.
 - h. Compliance with specified referenced standards.
 - i. Testing by recognized testing agency.
 - j. Application of testing agency labels and seals.
 - k. Notation of coordination requirements.
5. Submit Product Data before or concurrent with Samples.

D. Shop Drawings:

1. Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
2. Preparation:
 - a. Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - 1) Dimensions.
 - 2) Identification of products.
 - 3) Fabrication and installation drawings.
 - 4) Roughing-in and setting diagrams.
 - 5) Shop work manufacturing instructions.
 - 6) Templates and patterns.
 - 7) Schedules.
 - 8) Design calculations.
 - 9) Compliance with specified standards.
 - 10) Notation of coordination requirements.
 - 11) Notation of dimensions established by field measurement.
 - 12) Relationship to adjoining construction clearly indicated.
 - 13) Seal and signature of professional engineer if specified.
3. Sheet Size:
 - a. 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.

E. Samples:

1. Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
2. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
3. Identification:
 - a. Attach label on unexposed side of Samples that includes the following:
 - 1) Generic description of Sample.
 - 2) Product name and name of manufacturer.
 - 3) Sample source.
 - 4) Number and title of appropriate Specification Section.

4. Disposition:
 - a. Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection:
 - a. Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - b. Number of Samples:
 - 1) Submit three full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Designer will return submittal with options selected.
6. Samples for Verification:
 - a. Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - b. Number of Samples:
 - 1) Submit three sets of Samples. Designer will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
 - 2) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 3) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

F. Subcontract List:

1. Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - a. Name, address, and telephone number of entities performing subcontract or supplying products.
 - b. Number and title of related Specification Section(s) covered by subcontract.
 - c. Drawing number and detail references, as appropriate, covered by subcontract.

2.2 INFORMATIONAL SUBMITTALS

A. General:

1. Prepare and submit Informational Submittals required by other Specification Sections.

B. Certificates and Certifications:

1. 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.

C. Test and Inspection Reports:

1. Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- N. Maintenance Data:
1. Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- O. Design Data:
1. Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- P. Manufacturer's Instructions:
1. Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of the manufacturer. Include the following, as applicable:
 - a. Preparation of substrates.
 - b. Required substrate tolerances.
 - c. Sequence of installation or erection.
 - d. Required installation tolerances.
 - e. Required adjustments.
 - f. Recommendations for cleaning and protection.
- Q. Manufacturer's Field Reports:
1. Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - a. Name, address, and telephone number of factory-authorized service representative making report.
 - b. Statement on condition of substrates and their acceptability for installation of product.
 - c. Statement that products at Project site comply with requirements.
 - d. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - e. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - f. Statement whether conditions, products, and installation will affect warranty.
 - g. Other required items indicated in individual Specification Sections.
- R. Insurance Certificates:
1. Prepare written information indicating current status of insurance coverage. Include name of entity covered by insurance, limits of coverage, and term of the coverage.
- S. Construction Photographs and Videotapes:
1. Comply with requirements specified in Division 01 Section "Photographic Documentation."
- T. Material Safety Data Sheets (MSDSs):
1. Submit information directly to Owner; do not submit to Designer.
- 2.3 DELEGATED DESIGN
- A. Performance and Design Criteria:

1. Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Designer.
- B. Delegated-Design Submittal:
1. In addition to Shop Drawings, Product Data, and other required submittals, submit an original copy or electronic PDF file of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. 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 Designer.
- B. Approval Stamp:
1. 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 DESIGNER'S / ACTION

- A. General:
1. Designer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals:
1. Designer will review each submittal, make marks to indicate corrections or modifications required, and return it. Designer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - a. "Approved": Fabrication / installation may be undertaken. Approval does not authorize changes to Contract Sum or Contract Time.
 - b. "Approved as Corrected": Fabrication / installation may be undertaken by including notations and corrections indicated. Approval does not authorize changes to Contract Sum or Contract Time.
 - c. "Revise and Resubmit": Fabrication and / or installation MAY NOT be undertaken. In resubmitting, limit corrections to items marked.
 - d. "Rejected": Fabrication and / or installation MAY NOT be undertaken. In resubmitting, limit corrections to items marked.
- C. Informational Submittals:
1. Designer will review each submittal and will not return it, or will return it if it does not comply with requirements. Designer will forward each submittal to appropriate party.
- D. Partial 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 01 3300

SECTION 01 4000
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Designer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Designer.
- C. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- D. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- E. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- F. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- G. Installer/Applicator/Erector: 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.
- H. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five 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.

to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

- G. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.7 QUALITY CONTROL

- A. Contractor Responsibilities: When specified in individual sections, restrict execution of specified Work to Applicators and Personnel meeting indicated qualifications.

1. Install all roofing materials using personnel directly employed by Roofing Contractor with NDL certification from roofing material manufacturer - no Sub-Contracting permitted.
2. Assign a qualified, full time, non-working supervisor to be on Project site at all times during installation of Work. This supervisor to have good communication skills and be able to communicate with Owner and Applicator's workers.
3. Designate a responsible Project Manager or Superintendent to inspect all installed Work, particularly tie-ins and temporary flashings, at end of each working day and as otherwise required to ensure water-tightness. Inspection to be verified by signature on a Form signifying installation is in accordance with specified requirements.

- B. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
3. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

- C. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

- D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."

- E. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Designer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Designer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Designer.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Designer's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

**SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Designer, occupants of Project, testing agencies, and Authorities Having Jurisdiction.
- B. Water Service: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch, 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.

2.2 TEMPORARY FACILITIES

- A. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations. Store combustible materials apart from building in appropriate UL rated cabinets.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 TEMPORARY UTILITY INSTALLATION

- A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- B. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.

3.2 SUPPORT FACILITIES INSTALLATION

- A. Parking: Arrange with Owner for temporary parking areas for construction personnel.
 - 1. Restrict Contractors' personnel to assigned areas.
 - 2. When site space is not adequate, provide additional off-site parking.
- B. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of the Project Manual and Authorities Having Jurisdiction.
- C. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- D. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

3.4 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.
- C. 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 property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in the Project Manual.

END OF SECTION 01 5000

**SECTION 01 7300
EXECUTION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. 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. Protection of installed construction.
 - 4. Correction of the Work.

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. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and 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.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. 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. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 5. 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 Designer. 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.
- 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. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. 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.
- G. 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 Designer.
 - 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.
- H. 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.
- I. 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.

**SECTION 01 7700
CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Final Observation Procedures.
2. Warranties.
3. Final cleaning.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before determining date of Substantial Completion, confirm the following tasks below are complete. List all items that are incomplete in complete when defining the Substantial Completion Date.

1. Prepare a list of items in process, to be completed, and/or need to be corrected, the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit for specific warranties, workmanship warranties, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Terminate and schedule for removal temporary facilities from Project site, along with mockups, construction tools, and similar elements.
8. Complete final cleaning requirements, including touchup painting.
9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects. This includes:
 - a. Areas where interior protection product and securement accessories are located and/or marred during installation and removal.
 - 1) The installation and removal of 01 5600-Sealed Dust and Debris Controls shall include repairing any holes and cleaning the surrounding surfaces. It excludes painting any patches to match the surrounding wall surfaces.
 - b. Fireproofing that has been dislodged from its original location due to roof demolition and installation.

- B. Final Substantial: Submit a written request for Substantial Completion Observations. On receipt of request, Consultant will either proceed with Final Observations or notify Contractor of unfulfilled requirements. Consultant will prepare the Certificate of Substantial Completion after Substantial Observations or will notify Contractor of items, either on Contractor's list or additional items identified by Consultant, that must be completed or corrected before Final Certificate will be issued. Results of completed Substantial Observations will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting Final Observations for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
 2. Submit certified copy of Consultant's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Consultant. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Inspection: Submit a written request for Final Observation for acceptance. On receipt of request, Consultant will either proceed with Final Observation or notify Contractor of unfulfilled requirements. Consultant will prepare a final Certificate for Payment after Final Observation or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Re-Final Observation: Request Re-Final Observation when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE/OPEN ITEMS (PUNCH LIST)

- A. Preparation: Submit one PDF file format of the Punch List. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Consultant.
 - d. Name of Contractor.
 - e. Page number.

1.6 WARRANTIES

- A. Submittal Time: Submit written request for warranties or actual warranties on request of Consultant for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Include Warranties in "PROJECT CLOSEOUT DOCUMENTS" binder.
 4. Identify each binder on the front and spine with the typed or printed title "PROJECT CLOSEOUT DOUUMENTS," Project name, and name of Contractor.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Refer to Section 01 7300-Executing for cleaning agent requirements.

2.2 CLOSEOUT DOCUMENTS

- A. Prepare all data in the form of an informational manual.
- B. Submittal Time: Submit Closeout Documents for all portions of the Work with Final Completion documentation.
- C. Organize Closeout Documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Binders: Bind documents in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Dividers: Provide heavy paper dividers with plastic-covered tabs for each separate Part. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Covers: Identify each binder with typed or printed titles, "PROJECT CLOSEOUT DOCUMENTS", list title of Project; identify subject matter of contents.
 - 4. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified.
 - 5. Arrangement: Internally subdivide binder contents into logically organized parts as described below.
 - a. Part 1: Directory, listing names, addresses, and telephone numbers of Consultant, Contractor, Subcontractors, and major equipment suppliers.
 - b. Part 2: Items Required by Document 00 0700 "General Conditions" including:
 - 1) Certificate of Substantial Completion.
 - 2) Contractor's Affidavit of Payment of Debts and Claims (ref. *AIA Document G706*).
 - 3) Contractor's Affidavit of Release of Liens (ref. *AIA Document G706A*).
 - 4) Release of Lien from all Subcontractors.
 - 5) Release of Lien from all Suppliers.
 - 6) Certificate of Liability Insurance (ACORD 25-S 1/95).
 - c. Part 3: Project documents and certificates, including the following:
 - 1) Declaration, Certificates and other submittals listed above.
 - 2) Original and photocopies of Contractor's and Manufacturers' warranties.
 - 3) Shop drawings and product data.
 - d. Part 4 (if required): Operation and maintenance instructions arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - 1) Significant design criteria.
 - 2) List of equipment.
 - 3) Parts list for each component.
 - 4) Operating instructions.
 - 5) Maintenance instructions for equipment and systems.
 - 6) Maintenance instructions for finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
 - 6. Text: Manufacturer's printed data or typewritten data on 20-pound white paper.
 - 7. Drawings: Provide with reinforced punched binder tab. Bind in with text; folded to size of text.

8. Submit one copies of preliminary draft or proposed formats and outlines of contents before start of manual assembly. Consultant will review draft and return one copy with comments.

2.3 OPERATION AND MAINTENANCE DATA

- A. Prepare data in the form of an instructional manual. Include in "PROJECT CLOSEOUT DOCUMENTS" binder if possible.
- B. Submit two copies of completed volumes in final form 10 days prior to final inspection. This copy will be returned after final inspection, with Owner comments. Revise content of documents as required prior to final submittal.
- C. Submit two final volumes revised, within ten days after final inspection.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - f. Remove labels that are not permanent.
 - g. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - h. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning and the progress cleaning requirements defined in Section 01 7300-Execution.

3.2 POST CONSTRUCTION INSPECTION

- A. Inspection: Contractor will schedule a warranty inspection at 18 months after completion. Contractor may inspect separately and remedy any deficiencies not acceptable to manufacturer's Warranty requirements and terms. The Contractor will produce a Warranty Punchlist, which the Owner and/or Consultant can add to, that must be completed or corrected before release from Contractor Warranty will be issued.
 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis for release from Contractor Warranty.

END OF SECTION 01 7700

**SECTION 01 7839
PROJECT RECORD DOCUMENTS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Condition Drawings.
 - 2. Record Condition Specifications.
 - 3. Record Product Data.

1.3 SUBMITTALS

- A. Record Condition Drawings: Submit one set of marked-up Record Condition Drawing in a PDF file format.
- B. Record Condition Specifications: Submit one set of marked-up Project Record Condition Specifications, including addenda and contract modifications in a PDF file format.
- C. Record Product Data: Submit one set of each Product Data submittal. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD CONDITION DRAWINGS

- A. Record Condition Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Revisions to routing of piping and conduits.
 - d. Revisions to electrical circuitry.
 - e. Actual equipment locations.
 - f. Locations of concealed internal utilities.
 - g. Changes made by Change Order or Construction Change Directive.
 - h. Changes made following Designer's written orders.
 - i. Details not on the original Contract Drawings.
 - j. Field records for variable and concealed conditions.
 - k. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD CONDITION DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints and newly prepared Record Condition Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD CONDITION DRAWINGS."
 - d. Name of Designer.
 - e. Name of Contractor.

2.2 RECORD CONDITION SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record

Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Designer's reference during normal working hours.

END OF SECTION 01 7839

- E. Provide organism preservative-treated materials for all rough carpentry, unless otherwise indicated, and the following:
 - 1. Wood members, in connection, with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Concealed members in contact with masonry or concrete.
 - 3. Wood framing members that are less than 18 inches above the ground.
 - 4. Wood floor plates that are installed over concrete slabs-on-grade.
- F. Provide fire-retardant-treated materials for all rough carpentry, unless otherwise indicated, and the following:
 - 1. All framing as defined by the applicable IBC based on the use and classification of the structures and the exemptions defined in the code for roofing and re-roof applications.

2.3 LUMBER

- A. Dimension Lumber:
 - 1. Maximum Moisture Content: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal.
 - 2. Non-Load-Bearing Interior Partitions:
 - a. S-P-F Grade No. 2 or Construction.
 - 3. Framing Other Than Non-Load-Bearing Partitions:
 - a. Hem-Fir Grade No. 2 or Construction.
 - 4. Exposed Framing:
 - a. Hem-Fir Grade Hand Select, No. 1, or No. 2.
 - 1) Provide material hand-selected for uniformity of appearance and freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot-holes, shake, splits, torn grain, and wane.
- B. Exposed Boards: Idaho White Pine, Lodgepole Pine, or Ponderosa Pine Grade No. 2 or Common with a moisture content of 15 %.
- C. Concealed Boards: S-P-F Western Woods Grade No. 2 with a moisture content of 15 %.
- D. Miscellaneous Lumber: S-P-F Grade No. 2 or Common with a moisture content of 15 %. Provide for nailers, blocking, and similar members.

2.4 ENGINEERED WOOD PRODUCTS

- A. Engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be demonstrated by comprehensive testing.
- B. Laminated-Veneer Lumber (LV): Manufactured with exterior-type adhesive complying with ASTM D 2559. Allowable design values determined according to ASTM D 5456.
- C. Rim Boards: Product designed to be used as a load-bearing member and to brace wood joists at bearing ends, complying with research/evaluation report for wood joists. Rim boards allowed to be OSB, LVL with at least 1½-inches minimum thickness.

2.5 MISCELLANEOUS PRODUCTS

- A. Fasteners:
 - 1. Size and type indicated by building code or engineering. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153.
 - 2. Power-Driven Fasteners: ICC-ES-ESR-1539.
 - 3. Bolts: Steel bolts complying with ASTM A307, Grade A (ISO 898-1, Property Class 4.6); with ASTM A563 hex nuts and, where indicated, flat washers.
- B. Metal Framing Anchors: Hot-dip galvanized steel of structural capacity, type, and size indicated.

1. Use anchors made from hot-dip galvanized steel complying with ASTM F2329, G60 coating designation for interior locations where stainless steel is not indicated.
 2. Use anchors made from stainless steel complying with ASTM A666, Type 304 for exterior locations and where indicated.
- C. Building Paper:
1. Asphalt-saturated organic felt complying with ASTM D226, Type I (No. 30 asphalt felt), unperforated.
 2. Flexible weather barrier consisting of spunbonded high density polyethylene fibers complying with ASTM D779.
- D. Adhesives for Field Gluing Panels to Framing: APA AFG-01.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Securely attach rough carpentry to substrates, complying with the following:
1. ICC-Evaluation Service (ES) ESR-1539 for nail and staple fasteners driven by hand or pneumatic.
 2. ICC-Evaluation Service for power-driven fasteners:
 - a. ICC-ES ESR-1955 – ITW Ramset
 - b. ICC-ES ESR-1752 – Hilti
 - c. ICC-ES ESR-2024 – DeWalt/Powers
 - d. ICC-ES ESR-3833 – Aerosmith Fastening Systems
 3. Published requirements of metal framing anchor manufacturer.
 4. As defined by 2021 International Building Code:
 - a. Table 2304.8(1) – Roof Sheathing Spans for Lumber Floor and Roof Sheathing.
 - b. Table 2304.8(2) – Sheathing Lumber, Minimum Grade Requirements, Board Grade.
 - c. Table 2304.8(3) – Allowable Spans and Loads for Wood Structural Panel Sheathing and Single-Floor Grade Continuous Over Two or More Spans with Strength Axis Perpendicular to Supports
 - d. Table 2304.8(5) – Allowable Load (PSF) for Wood Structural Panel Roof Sheathing Continuous Over Two or More Spans and Strength Axis Parallel to Supports.
 - e. Table 2304.10.1 – Fastening Schedule.

END OF SECTION 06 1000

**SECTION 06 1600
ROOF SHEATHING**

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Model code ICC-Evaluation Service Evaluation Service Report (ESR) for preservative-treated plywood.

1.2 SUBSTITUTION REQUIREMENTS

- A. OSB and Plywood structural panels are NOT interchangeable. Switching to OSB panels from the design requirement of plywood panels is not allowed within this project.

PART 2 - PRODUCTS

2.1 WOOD PANEL PRODUCTS, GENERAL

- A. Wood Structural Panels shall meet the following standards:
 - 1. NIST Department of Commerce (DOC) Voluntary Product Standard PS 1.
 - 2. NIST Department of Commerce (DOC) Voluntary Product Standard PS 2.
 - 3. Engineered Wood Association "Engineered Wood Construction Guide" APA Form No. E30W (2016).

2.2 TREATED PLYWOOD

- A. Preservative-Treated Materials shall follow the American Wood Protection Association (AWPA) standards defined in the "Use Category System: User Specification for Treated Wood" U1 (2018). Wood products shall be treated for the following Use Codes:
 - 1. Organism Protection:
 - a. UC3A – Protected environment, no direct exposure to weather.
 - b. UC3B – Direct exposure to weather.
 - 2. Fire Protection:
 - a. UCFA – Protected environment, no direct exposure to weather.
 - b. UCFB – Direct exposure to weather.
- B. All wood products will be labeled by an inspection agency approved by American Lumber Standard Committee (ALSC) Board of Review.
- C. Preservatives used shall contain no compounds containing arsenic or chromium unless approved in writing by the Owner and Engineer in writing or defined on the drawings as a specifically defined compound.
- D. All wood after preservative treatment shall have the following properties:
 - 1. Moisture content after treatment,
 - a. OSB & Plywood 15 %
 - 2. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
 - 3. The following building uses, and types require all wood in roof structures to meet this sub-section:
 - a. School projects
 - b. Government projects
 - c. Residential of two or more units under one roof.
- E. Provide preservative treated plywood for items indicated on Drawings and plywood in contact with masonry or concrete or used with roofing, flashings, vapor barriers, and water proofing.
 - 1. Provide organism preservative-treated materials for all rough carpentry, unless otherwise

indicated, and the following:

- a. Wood members, in connection, with roofing, flashing, vapor barriers, and waterproofing.
 - b. Concealed members in contact with masonry or concrete.
 - c. Wood framing members that are less than 18 inches above the ground.
 - d. Wood floor plates that are installed over concrete slabs-on-grade.
2. Provide fire-retardant-treated materials for all rough carpentry, unless otherwise indicated, and the following:
- a. All framing as defined by the applicable IBC based on the use and classification of the structures and the exemptions defined in the code for roofing and re-roof applications.

2.3 ROOF SHEATHING

- A. Plywood Roof Sheathing: APA CDX Exposure 1 plywood.

2.4 MISCELLANEOUS PRODUCTS

- A. Fasteners:

1. Size and type indicated by building code or engineering. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153.
2. Power-Driven Fasteners: ICC-ES-ESR-1539.
3. Bolts: Steel bolts complying with ASTM A307, Grade A (ISO 898-1, Property Class 4.6); with ASTM A563 hex nuts and, where indicated, flat washers.

- B. Metal Framing Anchors: Hot-dip galvanized steel of structural capacity, type, and size indicated.

1. Use anchors made from hot-dip galvanized steel complying with ASTM F2329, G60 coating designation for interior locations where stainless steel is not indicated.
2. Use anchors made from stainless steel complying with ASTM A666, Type 304 for exterior locations and where indicated.

- C. Building Paper:

1. Asphalt-saturated organic felt complying with ASTM D226, Type I (No. 30 asphalt felt), unperforated.
2. Flexible weather barrier consisting of spunbonded high density polyethylene fibers complying with ASTM D779.

- D. Adhesives for Field Gluing Panels to Framing: APA AFG-01.

- E. Flexible Flashing: Adhesive rubberized asphalt compound, bonded to polyethylene film, with an overall thickness of 0.030 inch.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Securely attach rough carpentry to substrates, complying with the following:

1. ICC-Evaluation Service (ES) ESR-1539 for nail and staple fasteners driven by hand or pneumatic.
2. ICC-Evaluation Service for power-driven fasteners:
 - a. ICC-ES ESR-1955 – ITW Ramset
 - b. ICC-ES ESR-1752 – Hilti
 - c. ICC-ES ESR-2024 – DeWalt/Powers
 - d. ICC-ES ESR-3833 – Aerosmith Fastening Systems
3. Published requirements of metal framing anchor manufacturer.

4. As defined by 2021 International Building Code:
 - a. Table 2304.6.1 – Maximum Allowable Stress Design Wind Speed, Vasd Permitted for Wood Structural Panel Wall Sheathing Used to Resist Wind Pressures.
 - b. Table 2304.8(1) – Roof Sheathing Spans for Lumber Floor and Roof Sheathing.
 - c. Table 2304.8(2) – Sheathing Lumber, Minimum Grade Requirements, Board Grade.
 - d. Table 2304.8(3) – Allowable Spans and Loads for Wood Structural Panel Sheathing and Single-Floor Grade Continuous Over Two or More Spans with Strength Axis Perpendicular to Supports
 - e. Table 2304.8(5) – Allowable Load (PSF) for Wood Structural Panel Roof Sheathing Continuous Over Two or More Spans and Strength Axis Parallel to Supports.
 - f. Table 2304.10.1 – Fastening Schedule.

B. Fastening Methods:

1. Wall and Roof Sheathing:
 - a. Nail or screw to wood framing.
 - b. Screw to cold-formed metal framing.
 - c. Screw to masonry.

END OF SECTION 06 1600

**SECTION 07 0150
MINOR DEMOLITION, RENOVATION WORK, AND ROOF RECOVER PREPARATION**

PART 1 - GENERAL

- 1.1 SECTION INCLUDES:
- A. Required demolition for reroofing work.
 - B. Required renovation for reroofing work.
 - C. Partial roof tear-off.
 - D. Temporary roofing membrane
 - E. Roof re-cover preparation.
 - F. Protection of existing roofing system that is not replaced.
 - G. Modify Rooftop appurtenances where required to achieve minimum recommended heights and clearances as required for new roof installation.
- 1.2 RELATED SECTIONS:
- A. Section 06 1000 – Rough Carpentry.
 - B. Section 06 1600 – Roof Sheathing.
 - C. Section 07 5300 – EPDM Membrane Roofing.
 - D. Section 07 6200 – Sheet Metal Flashing and Trim.
- 1.3 SUBMITTALS:
- A. Product Data: Submit manufacturer's product data sheets for each product in accordance with General Conditions and Division Seven.
 - B. Product List: Submit list of proposed Products and manufacturers, including all items specified in Part 2 – Products or otherwise required by the Work.
 - C. Product Data: For each type of product indicated or required to perform the Work.
 - 1. Provide data for each required product indicating characteristics, performance criteria, mixing and preparation requirements, limitations, and Material Safety Data Sheets (MSDS).
 - D. Demolition and Removal Procedures and Schedule: Outline all work tasks and schedule them, showing clearly when each area is to be performed. Coordinate with Owner and other contractors to avoid impact to other work Owner's occupancy.
 - E. Temporary Roofing: Submit Product Data and description of temporary roofing system. If temporary roof will remain in place, submit surface preparation requirements needed to receive permanent roof, and submit a letter from roofing membrane manufacturer stating acceptance of temporary membrane, and that its inclusion will not adversely affect the roofing system's resistance to fire and wind or its FM Global rating.
 - F. Test Reports:
 - 1. Fastener Pull Test Results: Provide complete testing results in an organized and understandable format, including:
 - a. Roof plan indicating location and designation for each pullout test;
 - b. Fastener type(s), installation method(s) used, and value result for each test performed.
 - c. Type of tester (equipment) used and calibration certification by Independent Laboratory within previous 12 months.
 - G. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces that might be misconstrued as having been damaged by roof replacement operations. Submit before Work begins.
 - H. Landfill Records: Indicate receipt and acceptance of hazardous wastes, such as asbestos-containing material, by a landfill facility licensed to accept hazardous wastes.
 - I. Project Kickoff Conference: Conduct conference at Project site to comply with requirements of the specifications. Review methods and procedures related to roofing system tear-off and replacement including, but not limited to, the following:

1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; deck Installer; roofing Installer including project manager, superintendent, and foreman; and installers whose work interfaces with or affects roof replacement including installers of roof accessories and roof-mounted equipment.
 2. Methods and procedures related to roof replacement preparation, including membrane roofing system manufacturer's written instructions.
 3. Temporary protection requirements for existing roofing system that is to remain, during and after installation.
 4. Roof drainage during each stage of roof replacement and roof drain plugging and plug removal requirements.
 5. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 6. Existing deck removal procedures and Owner notifications.
 7. Condition and acceptance of existing roof deck and base flashing substrate for reuse.
 8. Structural loading limitations of deck during roof replacement.
 9. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect roof replacement.
 10. HVAC shutdown and sealing of air intakes.
 11. Shutdown of fire-suppression, -protection, -alarm, and -detection systems.
 12. Asbestos removal and discovery of asbestos-containing materials.
 13. Governing regulations and requirements for insurance and certificates if applicable.
 14. Existing conditions that may require notification of Architect before proceeding.
- 1.4 PROTECTIONS:
- A. Prior to starting minor demolition operations, provide necessary protections as specified in General Conditions and Division Seven.
- 1.5 COORDINATION:
- A. Sequence minor demolition and renovation with work sequence of reroofing work.
 - B. Coordinate with reroofing work so that no more existing roofing and sheet metal items are removed in one day than can be replaced along with new roofing work in same day.
- 1.6 PROJECT CONDITIONS
- A. Owner will occupy portions of building immediately below roof replacement area. Conduct roof replacement 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.
 2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below the affected area. Verify that occupants below the work area have been evacuated before proceeding with work over the impaired deck area.
 3. Protect buildings scheduled for roof replacement, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from roof replacement operations.
 - B. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
 1. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
 - C. Limit construction loads on roof to 200 lb rooftop equipment wheel loads and 20 PSF for uniformly distributed loads.
 - D. Construction Drawings and Project Manual for existing roofing system are provided for Contractor's reference. Contractor is responsible for conclusions derived from existing documents.

- E. Weather Limitations: Proceed with roof replacement preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during roof replacement, by methods and with materials so as not to void existing roofing system warranty. Notify warrantor before proceeding.
 - 1. Notify warrantor of existing roofing system on completion of roof replacement, and obtain documentation verifying that existing roofing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 INFILL MATERIALS

- A. Use infill materials matching existing membrane roofing system materials, unless otherwise indicated.
- B. Deck Repair Materials:
 - 1. Steel Deck: Match existing deck in design, profile, gage and finish. Deck to nest into existing deck with trimmed edges.
- C. All Decks: Align top plane with existing deck.
- D. Curbs and Support Members: Wood or metal curbs and support items as indicated and required for existing conditions.
- E. Miscellaneous Metals: Conform to existing Products and installations.

2.2 TEMPORARY ROOFING MATERIALS

- A. Design and selection of materials for temporary roofing are responsibilities of Contractor.
 - 1. Materials selection and design of temporary roofing to be acceptable to selected roofing materials manufacturer.

2.3 AUXILIARY ROOF REPLACEMENT MATERIALS

- A. General: Auxiliary roof replacement preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new membrane roofing system.

2.4 MATERIALS

- A. Wood Nailers and Blocking: Utility grade lumber, any commercial softwood species, kiln dried and preservative treated.
- B. Fasteners:
 - 1. Screws: Fluorocarbon coated screws, i.e. Roofgrip Climaseal™.
 - 2. Nails: Nonferrous, cement-coated, or hot-dip galvanized ring-shank nails.
 - 3. Concrete and Masonry: Stainless steel or galvanized screws with lead expansion anchor, Acceptable fasteners:
 - a. DeWALT Zamac Nailin or approved equal.
- C. Concrete Splash Blocks:
 - 1. Precast concrete, minimum 3,000 psi strength, 18-inch x 30-inch size, with water channel.
- D. Concrete Roof Pavers:
 - 1. Heavyweight, high density reinforced, hydraulically pressed, concrete units, square edged, factory cast for use as roof pavers; absorption not greater than 5 percent, ASTM C 140; no breakage and maximum 1 percent mass loss when tested for freeze-thaw resistance, ASTM C 67; and as follows:
 - a. Size: 24 by 24 inches. Manufacture pavers to dimensional tolerances of plus or minus 1/16 inch in length, height, and thickness.

- B. Protect existing membrane roofing system that is indicated not to be reroofed.
 - 1. Limit traffic and material storage to areas of existing roofing membrane that have been protected.
 - 2. Maintain temporary protection and leave in place until roofing work has been completed.
- C. Prevent movement or settlement of adjacent structures and paving. Provide bracing and shoring.
- D. Protect existing landscaping materials, appurtenances, structures, paving, roofing and siding, roof mounted equipment, roof deck and structures which are not to be demolished.
- E. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with roof replacement work that could affect indoor air quality or activate smoke detectors in the ductwork.
- F. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- G. 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 are 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.
- H. Verify that rooftop utilities and service piping have been shut off before beginning the Work.
- I. Electric metallic tube (EMT) conduits may exist within the high flutes of the metal roof deck areas. Contractor to coordinate access to interior roof areas with Owner and identify locations where EMT has been installed within the high flutes of the metal deck prior to tear off and new roof installation. Contractor to take care not to penetrate or damage the existing EMT and electrical wiring components as part of new roof installation. Any damage that occurs because of the roof work will be repaired and returned to pre-construction condition at no expense to the Owner.

3.3 FASTENER PULL-OUT TESTING

- A. Perform fastener pull-out tests according to SPRI FX-1, and submit test report to membrane manufacturer to confirm and/or determine fastener pattern required to resist uplift pressure at corners, perimeter, and field of roof as indicated Article on Performance Requirements.
 - 1. Obtain Architect's approval to proceed with membrane manufacturer's recommended fastening pattern. Architect may furnish revised fastener or fastening pattern design to commensurate with pull-out test results.

3.4 FASTENING STRIPS, NAILERS, BLOCKING

- A. Install new continuous treated wood nailers at the perimeter of the entire roof and around roof projections and penetrations as detailed.
- B. Nailers shall be anchored to resist a minimum force of 250 pounds per lineal foot in any direction. Individual nailer lengths shall not be less than 3 feet long. Nailer fastener spacing shall be at 12-inches on center or 16-inches on center if necessary, to match the structural framing. Fasteners shall be staggered 1/3 the nailer width and installed within 6-inches of each end. Two (2) fasteners shall be installed at ends of nailer lengths. Nailer attachment shall meet this requirement and that of the current Factory Mutual Loss Prevention Data Sheet 1-49.
- C. Total nailer height must be a minimum of 2-inches above the finished roof surface at all perimeter locations. Install with 1/8-inch gap between each length and ensure each subsequent layer has a minimum 12-inch material stagger.
- D. Thickness shall be as required to match substrate or insulation height to allow a smooth transition at eaves and gutter edges.
- E. Taper nailer, where applicable, to be flush at point of contact with membrane in either the vertical or horizontal applications.
- F. Any existing nailer woodwork which is to remain shall be firmly anchored in place to resist a minimum force of 250 pounds per lineal foot in any direction and shall be free of rot, excess moisture or deterioration. Only woodwork shown to be reused in Detail Drawings shall be left in place. All other nailer woodwork shall be removed.

2. Provide fire-rated thermal barrier (gypsum board, Dens-Deck®, or approved alternate) on Steel decking under polyisocyanurate insulation.
- C. Steel Deck:
1. Type A: Where repair area exceeds two square feet and/or 12-inches on any side.
 - a. Remove deteriorated deck to 6-inches into non-deteriorated deck on all sides.
 - b. Prime existing deck at attachment points with rust bonding red oxide metal primer.
 - 1) Install new 22-gage galvanized Steel deck of matching profile over infill area.
 - 2) Lap each end of new deck a minimum of 6-inches over existing deck.
 - 3) Lap each side of new deck a minimum of one deck flute over existing deck.
 - c. Attach to existing deck with fasteners as recommended by deck manufacturer or as follows:
 - 1) Ends: #5 TEK screws at maximum 6-inches on center or as directed.
 - 2) Sides: Self-tapping sheet metal screws at maximum 6-inches on center or as directed.
 2. Type B: Where repair area is less than 12-inches on any side.
 - a. Remove all rust by wire brushing and apply rust bonding red oxide metal primer.
 - b. Install new 18-gage galvanized sheet metal plate over infill area.
 - 1) Lap all sides of new plate a minimum of 12-inches over existing deck.
 - c. Attach to existing deck with fasteners as recommended by deck manufacturer or with self-tapping sheet metal screws at maximum 6-inches on center or as directed.
- 3.10 INTERIOR FINISHES REPAIR
- A. Where a curb/skylight is raised or modified that is visible from interior spaces, Contractor to furnish and install new drywall to cover the exposed wood blocking or framing components. Contractor to paint new drywall and interior repairs to match existing finishes, as approved by Owner.
- 3.11 TEMPORARY ROOFING MEMBRANE
- A. Install approved temporary roofing membrane over area to be reroofed.
 - B. Remove temporary roofing membrane before installing new roofing membrane.
- 3.12 EXISTING BASE FLASHINGS
- A. Remove existing base flashings around parapets, curbs, walls, and penetrations.
 - B. Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris.
 - C. Do not damage existing curbs, counter-flashings, metal roofing panels, or other components or equipment that are to remain. Replace items damaged during removal with new Products of same design and quality.
 - D. Inspect parapet sheathing for deterioration and damage. If parapet sheathing has deteriorated, immediately notify Architect.
- 3.13 EXISTING MECHANICAL AND ELECTRICAL ITEMS MODIFICATIONS
- A. When required to achieve recommended clearances, minimum curb heights, or other modifications, disconnect, modify, and reconnect mechanical and electrical services using qualified and licensed personnel.
 - B. Do not disrupt any services unless specifically approved by Owner's Representative and on-site personnel.
 - C. Restore services and verify proper operational conditions to satisfaction of Owner's Representative.
 - D. Where service lines exist or where new services lines will be installed, Contractor to ensure all service lines are raised as necessary to meet the minimum clearances above the finished roof surface as defined by the design documents, local AHJ, and adopted building codes. Service lines include, but are not limited to, gas lines, electrical conduit lines, and water lines.
- 3.14 MINOR DEMOLITION OPERATIONS:
- A. General:

1. Comply with precautions and procedures specified in General Conditions and Division Seven.
 2. Demolish and remove existing construction only to the extent required by new construction.
 3. Cut and remove materials as designated on Drawings.
 4. Execute demolition in a careful and orderly manner with least possible disturbance or damage to adjoining surfaces and structure.
 5. Avoid excessive vibrations in demolition procedures that would be transmitted through existing structure and finish materials.
 6. Dispose of demolished items and materials promptly.
 7. Existing Items to Remain:
 - a. Protect areas adjacent to demolition against damage and soiling during demolition, including interior areas subject to dust and debris from operations overhead.
 8. Provide and maintain temporary fall protection, especially around skylight and other deck openings and unprotected edges, in accordance with OSHA requirements.
 9. Erect and maintain protective weathertight closures for areas of deck repair/replacement.
 10. Provide and maintain temporary barriers to prevent spread of dust, fumes, noise, and smoke to allow continued building occupancy, as needed.
- B. Lightweight Concrete Fill Removal – Base Bid Scope of Work:
1. Remove existing lightweight concrete fill under existing membrane roofing system from structural deck at all existing lightweight concrete fill locations.
 2. Take care when removing the lightweight concrete not to damage structural concrete roof deck.
 - a. Repair concrete roof deck in accordance with project documents as needed.
- C. Abandoned equipment curbs supports and vents:
1. Completely remove abandoned curb supports.
 2. Remove abandoned piping and vent penetrations, electrical conduit and switch gear. Cap-off at roof deck level.
- D. Abandoned curbs/equipment demolition:
1. Completely remove existing abandoned curbs and/or equipment.
 2. Remove curbs to deck level, and patch hole in roof deck to match existing roof deck.
- E. Pitch pans:
1. Remove existing pitch pans and wood blocking supporting piping.
 2. Remove existing pitch pans at conduit and pipe penetrations.
 3. Remove existing pitch pans and wood blocking supporting at mechanical equipment.
- F. Roof drains:
1. Replace all existing (or missing) drain strainers and clamping rings with new.
 2. Clean, prime, and paint existing drain bowl assemblies. New clamping ring and strainer colors to be submitted to and approved in writing by Owner.
 3. Existing drain bowls found to be damaged must be documented by the Contractor and submitted in writing to both the Owner and Consultant for review and approval, prior to commencement of potential repair or replacement work.
 4. Tap and die existing drain bowls as necessary for new bolt connections to ensure drain flashings and new clamping rings are adequately sealed and made watertight.
 5. All roof drains are to be water tested for potential leaks/blockages prior to construction. All findings shall be documented and reported to the Owner and Owner's Consultant. Any leaks/blockages found during construction that were not reported by the Contractor, prior to construction, will fall under the responsibility of the Contractor to repair and/or replace any parts as necessary at no expense to the Owner.
 6. Contractor to confirm drain bowls, clamping rings, and associated bolts/accessories are intact and in working order. All broken/damaged components that could compromise the integrity of the drain assembly shall be documented and reported to the Owner and Owners Consultant prior to construction.

7. Lower drain to the roof deck as necessary to provide for sump.
8. Securely tighten clamping rings and securely install strainers.

3.15 DISPOSAL:

- A. Unless specifically noted otherwise, materials, equipment and debris resulting from demolition operations shall become property of Contractor. Remove demolition debris in accordance with applicable City, State and Federal laws, and in accordance with requirements of the General Conditions.
- B. Do not allow demolished materials to accumulate on-site.
- C. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- D. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- E. Dispose of demolition debris as required by applicable City, State and Federal laws, and in accordance with requirements of the General Conditions.
- F. Contractors are responsible for complying with all codes and ordinances and for legally removing and disposing of any roofing ACM.

3.16 MINOR RENOVATION WORK:

- A. Contractor is responsible for coordinating and engaging mechanical and electrical subcontractors to accommodate disconnecting and reinstalling minor renovation work items, and post installation testing and certifications as necessary.
- B. Replacing wood nailers and curbs with new wood nailers and curbs:
 1. Clean and prepare existing surfaces to receive wood nailers and curbs.
 2. Replace designated wood blocking with new wood blocking.
 3. Install wood nailers and curbs continuously without gaps and being plumb, level and true with joints flush. Securely fasten to structure with expansion fasteners and to existing wood with Fluorocarbon or epoxy coated screws, at a spacing of 12-inch O.C., maximum.
- C. Equipment Reinstallation:
 1. Remove and reinstall existing roof top equipment, HVAC units, and fans, as required, to facilitate installation of new roofing membrane and associated flashing.
 2. Carefully disconnect equipment and move in a manner to prevent damage to equipment or service lines.
 3. Add new wood nailers at top of existing roof curbs, to ensure that the finished roof flashing height is at least 8-inch above the new surrounding finish roof membrane surface. Raise equipment as necessary to achieve minimum curb height.
 4. Coordinate reinstallation with new equipment support curbs where scheduled.
 5. Reinstall equipment on curbs and supports after new flashing is installed. Securely fasten to curbs with new neoprene washered fasteners at a maximum spacing of 12-inches on center and a minimum of two (2) fasteners per side.
 6. Extend and reconnect electrical connections, gas piping and drain lines. Disconnecting, extending, and reconnecting of services shall be performed by a mechanical, plumbing, and/or electrical company licensed to perform such work in the AHJ.
 7. Equipment shall be left in complete operating condition.
- D. Relocating and Raising Piping and Conduit:
 1. Raise existing gas piping, vent pipes, conduit, and condensate drain lines where scheduled, a minimum of 12-inches above the finished roof surface, and where required for new curb heights, supports, and where needed due to new roof thickness.
 2. Disconnect gas piping and extend with new piping and fittings.
 3. Extend conduit with proper conduit connections and fittings. Extend wiring as required for additional conduit.
 4. Ensure all gas relief outlets have a minimum 4-inch clearance above the finished roof surface.
- E. Installation of New Gas Pipe Support Stands and Electrical Conduit Support Stands:
 1. Gas Pipe Supports:

SECTION 07 2210
ROOF AND DECK INSULATION BOARDS AND ASSOCIATED ACCESSORIES

PART 1 - GENERAL

1.1 SECTION INCLUDES:

- A. Complete Tear-off Roofs:
 - 1. Substrate preparation - Removal of all existing roof membranes and flashings, roof insulations, gypsum boards, down to the existing roof deck. Removal of flashings, existing leads and metal jacks.
- B. Demolition:
 - 1. Remove all abandoned roof penetrations (pipes, curbs, etc.) as designated by the Owner, from roof surface and patch roof deck to match existing. Raise all curbs as required by code to accommodate new roof system.
- C. Preparation (or removal) of existing roof insulation, installation of new roof insulation.
- D. Install new 5/8-inch gypsum substrate board over prepared metal roof deck, mechanically attached with coated fasteners and insulation plates.
- E. Installation of new base sheet.
- F. Installation of new self-adhered air and vapor retarder and primer.
- G. Installation of new ½-inch tapered roof insulation (crickets) at high side of curbs, where applicable.
- H. Installation of new flat and tapered coated glass facer, polyisocyanurate roof insulation over prepared existing insulation and prepared roof deck, with insulation joints staggered (offset).
- I. Install new ½-inch gypsum cover board over new polyisocyanurate roof insulation as specified, in foam adhesive.

1.2 RELATED SECTIONS:

- A. Section 06 1000 – Rough Carpentry.
- B. Section 06 1600 – Roof Sheathing.
- C. Section 07 0150 – Minor Demolition and Renovation Work.
- D. Section 07 5300 – EPDM Membrane Roofing.
- E. Section 07 6200 – Sheet Metal Flashing and Trim.

1.3 GENERAL REQUIREMENTS:

- A. Flat and tapered insulation types and overlay insulation board shall be supplied by roofing material manufacturer.
- B. Insulation shall be approved by the Building Code, Factory Mutual (FM), and Underwriters Laboratories (UL) for use as roofing insulation.
- C. Minimum basis of LTTR aged R-Values are:
 - 1. ½-inch Gypsum roof board is R-0.56.
 - 2. Polyisocyanurate insulation only is R-5.6 per inch.
 - 3. 5/8-inch Gypsum roof board is R-0.67.
- D. All products shall be from one manufacturer and intermixing between manufacturers is not allowed.

1.4 SUBMITTALS:

- A. Product cut sheets marked to define specific products to be bought and used on this project.
- B. Product assembly figures showing how the products will be assembled with attachment/fasteners being used defined.
- C. Screw fastening pattern for wind speed defined in the Drawings for all roof zones defined per ASCE 7 as shown on the Drawings.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. The product delivery, storage, and handling requirements of Specification Section 07 5300 – EPDM Membrane Roofing apply to this section.

- d. Full coverage application along the corners (Zone 3).
- 2. Spacing specified by the adhesive manufacturer spaced per the 48-inches width of insulation/cover board.
 - a. Contractor to confirm wind speed defined on Drawing with manufacturers requirements and submit foam bead pattern with submittals.
 - b. Roof Corners, Perimeter, and Field zone locations are defined in the Drawing documents.
- 3. All board materials installed in foam adhesive shall be stepped into place and positioned; weighted down until the bead foam adhesive has set (minimum 10 minutes) with full 5-gal adhesive pails (35# weight minimum); one in the center and one on each corner, so that no cupping or lack of adhesion occurs. Boards that 'bounce' or depresses under foot pressure is unacceptable.
- 4. Weight to remain on the insulation for a minimum of 10 minutes.

END OF SECTION 07 2210

of Owner's statutory rights under Colorado law to discover a construction defect and take action to correct same.

B. The Manufacturer shall provide (for all products furnished and installed) beginning at the date of final acceptance by the owner:

1. **Base Bid:**

- a. The Manufacturer's Thirty-Year (20) No Dollar Limit (NDL) Total System Warranty for 60-mil EPDM membranes.
- b. Warranty shall include hail up to 1.0-inch coverage with a 60-mil membrane.

2. **Roof Accessory Option #2:**

- a. The Manufacturer's Twenty-Year (20) No Dollar Limit (NDL) Total System Warranty for 90-mil EPDM membranes.
- b. Warranty shall include hail up to 2.0-inch coverage with a 90-mil membrane.

3. Warranty letter shall be issued covering all materials and workmanship including the following:

- a. Repairs required to maintain roof and flashing in a watertight condition.
- b. Make repairs at no expense to Owner.
- c. Warranty coverage to include:
 - 1) All roof insulations, insulation fasteners, vapor retarders, membrane fasteners and adhesives.
 - 2) Roof membrane components and adhesives. All accessory products required for installation of membrane roofing system, including bonding adhesive, flashing membrane, stripping plies, clad metal, pipe boots, pourable sealant pockets, etc.
- d. Warranty shall not exclude coverage, as a result of, small areas of standing or ponding water.

- 4. Warranty shall not exclude coverage, as a result, of winds less than 90 mph basic wind speed.
- 5. Pre-Engineered sheet metal detail shall be warranted by the manufacturer for a minimum 120 mph ultimate windspeed.
- 6. Warranty shall not be limited by a dollar amount.

C. Owner Responsibility

- 1. Owner shall notify both the manufacturer and the Installer of any leaks as they occur during the warranty time period when both warranties are in effect.

PART 2 - PRODUCTS

2.1 ETHYLENE-PROPYLENE-DIENE-MONOMER SHEET ROOFING COMPONENTS

A. Manufacturers of EPDM Roofing:

- 1. Carlisle SynTec 0.060-inch (60 mil) Non-Reinforced EPDM Sure-Seal Membrane.
- 2. Versico Roof Systems 0.060-inch (60 mil) Non-Reinforced EPDM Membrane.
- 3. Elevate Rubbergard 0.060-inch (60 mil) Non-Reinforced EPDM Membrane.
- 4. Johns Manville 0.060-inch (60 mil) Non-Reinforced EPDM Membrane.

B. Membrane Material Type: Ethylene Propylene Diene Terpolymer (EPDM) Membrane.

Physical Properties	ASTM Test Method	Value
Typical Values Tensile Strength	D-412	
Before Aging*		1,500 psi

	After Aging	1,650 psi
Elongation	D-412	
	Before Aging	425%
	After Aging	450%
Tear Resistance	D-624 Die C	275 lbs/in.
Dimensional Stability	D-1204 After Aging	1%
Brittleness Temperature	D-746	-
67° F Ozone Resistance	D-1149 (7 days @ 100pphm @ 104° F, 50% Ext.)	No Cracks @ 7X Mag.
Water Absorption	D-471 (7 days @ 158° F)	1%
Permanent Set @ Break	D-412	10%
Permeability (24 hours)	E-96 Proc. A	1.8g/m2
*Aging = 7 Days		

- C. Roof Flashing: Manufacturer's Uncured EPDM Membrane
- D. Accessories: Contact Manufacturer for a complete listing of accessories.

2.2 RELATED MATERIALS AND ATTACHMENT COMPONENTS

- A. Membrane flashings will be 0.060-inch (60 mil) thick EPDM.
- B. Russ-Strip:
 1. 6-inch pressure sensitive 45-mil reinforced EPDM membrane strip with a 3-inch wide adhesive strip along one side.
- C. Russ-Strip Plates:
 1. 2-inch round stamping of SAE 1010 steel with an AZ 55 Galvalume coating.
 2. Approved manufacturers are:
 - a. Carlisle – 2-inch Galvalume Coated-Steel Seam Fastening Plates
 - b. Versico – 2-inch Galvalume Coated-Steel Seam Fastening Plates
 - c. Elevate – 2-inch Galvalume Coated-Steel Seam Fastening Plates
 - d. Johns Manville – 2-inch Galvalume Coated-Steel Seam Fastening Plates
- D. Russ-Strip Fasteners:
 1. Number 15 (minimum) corrosion-resistant fastener with a buttress thread, used with seam fastening plates to attach the russ-strip to the appropriate vertical substrate:
 - a. Carlisle – HP-X Fastener
 - b. Versico – HPV Fastener
 - c. Elevate – Heavy Duty Fastener
 - d. Johns Manville – All Purpose Fasteners.
 2. Insulation fasteners protruding through an exposed roof decks SHALL best match the existing inside color of the roof deck.
- E. Bonding Adhesive for Field Membrane:
 1. Carlisle – Low-VOC Bonding Adhesive.
 2. Versico – Low-VOC Bonding Adhesive
 3. Elevate – Single-Ply Low-VOC Bonding Adhesive.
 4. Johns Manville – JM LVOC Membrane Adhesive.
- F. Bonding Adhesive for Flashing Membrane:
 1. Carlisle – Low-VOC Bonding Adhesive.
 2. Versico – Low-VOC Bonding Adhesive
 3. Elevate – RubberGard EPDM Solvent-Free Bonding Adhesive.
 4. Johns Manville – JM LVOC Membrane Adhesive.

- G. Liquid Flashing:
 - 1. A two-component polyurethane-based resin or polymethyl methacrylate-based resin, cold-applied with a reinforced flashing fleece.
 - a. Carlisle – LIQUISEAL Liquid Flashing.
 - b. Versico – LIQUISEAL Liquid Flashing.
 - c. Elevate – UltraFlash One-Part Liquid Flashing.
 - d. Johns Manville – JM SP Liquid Flashing Resin.
- H. Seam Tape:
 - 1. Factory applied tape wherever possible (supplied by the roofing system manufacturer).
- I. Cover Tape:
 - 1. 6-inch Semi-cured self-adhered cover tape.
- J. Seam adhesive:
 - 1. Supplied by the roofing system manufacturer.
- K. Caulks and sealants for use at T-Joint laps, membrane laps, and terminations as supplied by the roofing manufacturer for use with the approved system.
- L. Concrete Roof Paver:
 - 1. Refer to Section 07 0150 – Minor Demolition, Renovation Work, and Roof Recover Preparation.

2.3 MISCELLANEOUS ACCESSORIES

- A. Miscellaneous accessories for the project are as follows, but not limited to:
 - 1. Manufacturer Approved – Termination Bar, Prefabricated Vent Pipe Flashings, T-Joint Membrane Patches, Urethane Sealants, Prefabricated Inside and Outside Corner Flashings, Sealing Tape Strip, Multi-Purpose Tape, Solvent Cleaner, Caulking/Sealant, and Pourable Sealant.

2.4 MISCELLANEOUS FASTENERS AND ANCHOR

- A. All fasteners, anchors, nails, straps, bars, etc. shall be post-galvanized steel, aluminum or stainless steel. Mixing metal types and methods of contact shall be assembled in such a manner as to avoid galvanic corrosion. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins. All concrete fasteners and anchors shall have a minimum embedment of 1¼-inch and shall be approved for such use by the fastener manufacturer. All miscellaneous wood fasteners and anchors used for flashings shall have a minimum embedment of 1-inch and shall be approved for such use by the fastener manufacturer.

PART 3 - EXECUTION

3.1 SUBSTRATE CONDITION/EXAMINATION

- A. Installer shall be responsible for acceptance or provision of proper substrate to receive new roofing materials.
 - 1. Beginning installation means acceptance of all existing surfaces conditions.
- B. Installer shall verify that the work done under related sections meets the following conditions:
 - 1. Roof drains and/or scuppers have been reconditioned and/or replaced and installed properly.
 - 2. Roof curbs, nailers, equipment supports, vents and other roof penetrations are properly secured, prepared to receive new roofing materials, and have proper placement.
 - 3. All deck/substrate surfaces are dry, clean, smooth and free of sharp edges, burrs, deep depressions, loose material, oil, grease or other foreign material.
 - 4. All roof surfaces shall be free of water, ice and snow.

3.2 SUBSTRATE PREPARATION

- A. Comply with manufacturer's instructions for preparation of substrate to receive repair elastomeric sheet roofing.
- B. Preparation (or removal) of existing roof insulation, flashing, etc. down to the existing substrate.
- C. Inspect existing roof insulation, (that is scheduled to remain) and repair/replace all deteriorated/damaged roof insulation to ensure that the substrate is suitable to receive the new roofing system.
- D. Clean substrate of dust, debris, and other substances detrimental to elastic sheet roofing work.
- E. Beginning of installation means acceptance of conditions as satisfactory.
- F. Thoroughly clean all surfaces against or into which work will be installed. Ensure that all surfaces are clean and dry before starting and during performance of work. Follow roofing system manufacturer's recommendations.
- G. The roof deck and existing roof construction must be structurally sound to provide support for the new roof system. The Installer shall load materials on the rooftop in such a manner to eliminate risk of deck overload due to concentrated weight.
- H. Reroofing with Removal of Existing Roofing:
 - 1. All existing roofing, base flashing, deteriorated wood blocking or deteriorated metal flashings shall be removed down to the existing structural substrate diaphragm. Remove only that amount of roofing and flashing which can be made weathertight with new materials during a one-day period and before the onset of inclement weather.
 - 2. Exercise care in removal so as not to damage existing roof deck or adjacent surfaces.
 - 3. Do not stockpile debris on roof surface. Promptly remove debris each day. Use chutes to transfer debris from roof surface.
 - 4. Do not haul debris over newly installed roof membranes. Keep debris well downwind of prevailing wind.
 - 5. Provide a clean tarp over the previous days roofing, prior to tear-off start, to protect new roofing from dust, dirt, debris, etc., and from current days tear-off.
 - 6. Steel Deck:
 - a. FM Approved Steel Deck - Completely clean metal deck ribs of all roof debris, trash, etc. prior to installation of new roof insulation. All rusted or deteriorated decking shall be brought to the attention of the Owner's Representative and to determine method of treatment or replacement. Surface-only rusted metal shall be sanded, wire brushed, and treated with rust-inhibiting cold galvanizing compound paint. Sections that have rusted deeper than the surface or are not structurally sound shall be removed and replaced. Deck type shall match existing and shall conform to FM's recommendations as outlined in FM Loss Prevention data Sheet I-28 and local requirements.
 - 7. Poured Lightweight Structural Concrete Substrate:
 - a. The roof deck shall be smooth, even, free of dust, dirt, excess moisture or oil and be structurally sound. Sharp ridges, other projections and accumulations of bitumen above the surface shall be removed to ensure a smooth surface before roofing. Any deteriorated decking shall be repaired.
 - 8. Precast/Prestressed Concrete Deck:
 - a. The roof deck shall be smooth, even, free of dust, dirt, excess moisture or oil and be structurally sound. All joints between precast units shall be grouted. Any differentials in height between precast units shall be feathered for a smooth transition. Any deteriorated decking shall be repaired.
 - 9. Insulating Fill Substrate:
 - a. All wet or deteriorated insulating fill shall be removed and replaced. All accumulations of bitumen shall be removed, and the surface of the deck shall be smooth, and free of ridges and depressions. See steel/concrete requirements.

required to be present for this inspection. The manufacturer is to produce a written punch list and roof diagram of deficiencies found during their final inspection. A copy of this punch list, diagram and signed completion letter, will be provided to the owner's roof consultant prior to the owner and consultant performing their final inspection. Consultant and owner to attend final inspection. Installer is responsible for notifying both the owner and consultant two (2) weeks in advance of the manufacturer's inspection. Failure to notify both the owner and consultant may require a reinspection of the roof by the manufacturer at no cost to the owner.

- a. The manufacturer is to perform an 18-month inspection of the entire warrantied roof system 18-months after the guaranty issuance date. The roofing Installer, owner, and roof consultant are required to be present for this inspection.
- b. Installer shall accompany the manufacturer's technical inspector and consultant during the final inspection and assist the inspector with equipment and workmen when necessary to provide access to the roof. Correct all defects noted during the inspection per roof manufacturer's requirements.

3.7 CLEANING AND PATCHING

- A. Remove trash and debris resulting from roofing work at end of each day's work.
- B. Remove any markings caused by roofing from building surface.
- C. Repair or replace defaced or disfigured finishes caused by work of this Section.
- D. Patch misaligned or inadequately lapped seams, inadequately adhered areas, punctures or other damage to membrane with a patch of membrane sheet that extends at least 6 in. in each direction from deficiency.

3.8 PROTECTION

- A. Protect interior of building from water infiltration that may be caused by any work associated with this contract. Installer is responsible for insuring that the new and existing roof is kept watertight during construction.
- B. Protect newly installed roof system from damages that may be caused by any work associated with this contract. Any damages to the new roof system or the existing structure resulting from operations associated with work of the Installer will be repaired at no cost to the owner by the roofing Installer.
- C. Repair or replace defaced or disfigured finishes caused by work in this section.
- D. Provide adequate protection of completed work until substantial completion. Prevent traffic, storage, or movement of materials or equipment on completed roofing.
- E. Clean up all rubbish, debris, surplus materials, tools and equipment, and remove from site.

3.9 COMPLETION

- A. Prior to demobilization from the site, the work shall be reviewed by the Owner's Representative and the Installer. All defects noted and non-compliance with the Specifications or the recommendations of the manufacturer shall be itemized in a punch list. These items must be corrected immediately by the Installer to the satisfaction of the Owner's Representative and the manufacturer prior to demobilization.
- B. All punch-lists shall have been completed, and warranties referenced in this Specification shall have been delivered to the Owner's Representative prior to the Owner accepting the project for final payment.

END OF SECTION 07 5300

3)	a	5.0 feet.
4)	Roof Field (Zone 1):	51.4 psf.
5)	Roof Field (Zone 1):	89.4 psf.
6)	Roof Perimeter (Zone 2):	117.8 psf.
7)	Roof Corner (Zone 3):	160.6 psf.

- C. Thermal Movements: Provide sheet metal flashing and trim that allows for thermal movements from ambient and surface temperature changes.
1. Temperature Change (Range):
 - a. 120 degrees Fahrenheit, ambient air temperature
 - b. 180 degrees Fahrenheit, material surface temperature

- D. Water Infiltration: Provide sheet metal flashing and trim that will not allow water infiltration into the building interior.

1.8 WARRANTY:

- A. Provide Owner a written warranty for the sheet metal work to be free of leaks and defects in materials and workmanship for two (2) years after date of completion and acceptance of project by owner.

1. The Contractor shall warrant all materials and workmanship furnished for a period of two (2) years for the date placing the Work in service regardless of the terms of any manufacturer or supplier warranties. This warranty is in addition to and not a replacement of Owner's statutory rights under Colorado law to discover a construction defect and take action to correct same.

- B. Provide Owner with manufacturer's twenty (20) year Warranty covering wind blow off, leaking, and membrane failure, up to and including, winds of 120 miles per hour ultimate wind speed on Metal-Era fascia/coping system as defined within the project documents.

- C. Special Warranty on Finishes: Provide sheet metal manufacturer's standard thirty (30) year Kynar coating warranty.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
2. Finish Warranty Period: 30 years from date of Substantial Completion.

1.9 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. The product delivery, storage, and handling requirements of Specification Section 07 5300 – EPDM Membrane Roofing apply to this section.

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIAL:

- A. Galvanized Steel: ARMC0 Zincgrip Paintgrip, ASTM A526 commercial quality, coating designation G90, ASTM A525, gauge as scheduled.
- B. Pre-Finished Metal: Kynar Coated 24-gauge (0.0276-inch) metal as scheduled. Color as selected by Owner.

2.2 FASTENERS:

- A. Nails: Galvanized steel material, 3/8-inch flathead, wire, barbed, slating type. For washers use silicone, EPDM, or neoprene.
- B. Screws: Self-tapping sheet metal type and wood screws, cadmium or zinc plated.
- C. Rivets: Stainless steel or aluminum material, type and size as recommended by sheet metal manufacturer.

1. 24-gauge (0.0276-inch) Galvanized Kynar coated prefinished sheet steel, seal per SMACNA requirements and Figures 1-25, 1-27, and 1-28.
- H. Downspouts:
1. 24-gauge (0.0276-inch) Galvanized Kynar coated prefinished sheet steel and sealed per SMACNA requirements.
- I. Counter flashings:
1. 24-gauge (0.0276-inch) Galvanized Kynar coated prefinished sheet steel, formed in minimum 10 feet lengths.
- J. Roof Penetration Flashing Pipes:
1. 24-gauge (0.0276-inch) Galvanized Kynar coated prefinished sheet steel, in accordance with the design documents and per SMACNA Figures 8-8, 8-9, 8-10, and 8-11.
- K. Expansion Metals:
1. 24-gauge (0.0276-inch) Galvanized Kynar coated prefinished sheet steel, in accordance with the design documents and per SMACNA Figures 5-5A and 5-6B.
- L. Umbrella Counter flashing:
1. 24-gauge (0.0276-inch) Galvanized sheet steel, similar to SMACNA Figure 8-9C, two-piece construction, fabricated as detailed.
- M. Splash Blocks:
1. Precast concrete of size and profile indicated; minimum 3,000 psi at 28 days, with minimum 5 percent air entrainment; suitable for downspouts discharging at grade level or onto roof surface.

2.6 UNDERLAYMENT MATERIALS

- A. Self-Adhered Sheet:
1. Grace Ice and Water Shield Vycor Ultra.
 2. Approved Equivalent.

2.7 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work:
1. Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Exposed to View (Unfinished) Galvanized Steel Components:
1. Paint to match pre-painted metallic-coated steel prior to installation (where applicable)
 2. Clean: Comply with SSPC-1 - Solvent Wipe.
 3. Primer: Apply specified or finish paint manufacturer's recommended primer in accordance with manufacturer's instructions.
 4. Finish Coat: Apply powder coating or approved urethane enamel in accordance with manufacturer's instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that substrates are smooth and clean to extend needed for sheet metal work.

- B. Verify that reglets, nails, cants, and blocking to receive sheet metal are installed and free of concrete and soil.
- C. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
 - 1. **WARNING:** Confirm nailers provided by others are adequate for fastening Sheet Metal to and meet wind load structural requirements for Component & Cladding.
- D. Do not start sheet metal work until conditions are satisfactory.

3.2 GENERAL

- A. Remove all existing sheet metal and properly dispose of prior to installation of new sheet metal.
- B. Install work watertight without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
- C. Install fabricated sheet metal items in accordance with SMACNA Sheet Metal Manual and Drawing Details.
- D. Coat contact surfaces of dissimilar metals with Zinc chromate paint or isolation vinyl tape.
- E. Installation Tolerances:
 - 1. Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.3 INSTALLATION

- A. General:
 - 1. Install sheet metal items to produce complete roof drainage system according to SMACNA recommendations and as indicated.
 - 2. Coordinate installation of roof perimeter flashing with installation of waterproofing membrane.
- B. Pre-Manufactured Fascia/Edge Metal and Retainer Bar:
 - 1. Prior to installation, apply a continuous 3/8-inch bead of non-curing sealant to the inside face of the 12'-0" Metal-Era base rail.
 - 2. Along the exterior face of all parapet walls, after installation of new 3-inch x 3-inch L-metal and membrane overlay, install new 12'-0" Metal-Era base rails from right-to-left as seen from the roof top, lapping the previous section 1-inch.
 - 3. Fasten base rails through new 3-inch x 3-inch L-metal to new wood nailers, using the provided slots within the base rails at a maximum of 12-inches on center.
 - 4. Install new 6-inch spring clips every 48-inches on center. Ensure there is a spring clip under each fascia cover end.
 - 5. Fascia covers shall be installed from left-to-right as seen from the roof top. Place splice plates in right end of the cover. Snap right cover onto base rail by applying downward pressure with palm of hand until the fascia cover is fully engaged along the entire length.
 - 6. Lap joints and seal per manufacturer and contract requirements.
- C. Pre-Manufactured Parapet Cap:
 - 1. Install new parapet cap, where indicated on drawings, to new continuous anchor cleat (both sides). Furnish and install specified factory-fabricated parapet cap, manufactured and installed with slope as shown on drawings.
 - 2. Ensure that parapet cap is attached per manufacturer requirements with anchor cleat (both sides) fastened at a rate of 6-inch on center. Hang assembly over new metal edge.
- D. Pre-Manufactured Eave/ Edge Metal:
 - 1. At roof edge locations with no parapet, install reinforced securement strip adhered to substrate prior to installing new edge metal.
 - 2. Hang assembly over new continuous anchor cleat.
 - 3. Set horizontal flanges over reinforced securement strip per manufacturer requirements, and nail to wood blocking at 3 to 4 -inch O.C. staggered.

4. Install new metal fastened per roof manufacturer and contract documents.
 5. Install edge metal to ensure even/plumb appearance, allowing for expansion per manufacturer requirements.
- E. Pre-Manufactured Fascia:
1. Install fascia, where indicated on drawings, with hook strip fastened at a rate of 12-inches on center and with top of the fascia fastened at a rate of 6-inches on center. Ensure that fascia metal is installed to allow for movement, and to prevent warping, buckling and/or oil-canning.
- F. Scuppers:
1. Install with joints fully soldered. Extend flanges 4 -inch in each direction. Install wood nailers under flange.
 2. Paint exposed steel of overflow scuppers to best match Kynar coated metal colors for the project.
- G. Beauty Plates:
1. Install with mitered corners and hemmed outside edges around full perimeter of overflow scupper opening.
 2. Continuously seal top and sides (3 locations) of all beauty plates with manufacturer approved sealant. Color to be approved by Owner and best match metal or existing substrate color.
- H. Downspouts:
1. Install plumb and level, attached to wall with 1¼ -inch wide 24-gauge (0.0276-inch) prefinished galvanized sheet steel straps at top, bottom, and 10 feet on center maximum. Set splash pans in lap sealant on roof at bottom of down spouts.
- I. Flashings, Counter flashings:
1. Extend flanges into reglets and securely fasten.
 2. Where fastening is required, fasten at 6-inch O.C.
 3. Overlap 4-inch (minimum) on base flashing, lap ends of sheets 4-inches as required by SMACNA.
 4. Install continuous bead of sealant along top of and behind surface applied Reglet/Counter flashing.
- J. Expansion-Joint Covers:
1. Install expansion-joint covers at locations and of configuration indicated in Drawings and per SMACNA requirements.
- K. Downspouts:
1. Install plumb and level, attached to wall with 1¼ -inch wide 24-gauge (0.0276-inch) prefinished galvanized sheet steel straps installed at 4-foot on center maximum. from downspout drop.
 2. Set splash pans in lap sealant on roof at bottom of down spouts.
- L. Splash Blocks: Install where downspouts discharge on low-slope roofs or onto grade.
1. Roof Discharge: Set on traffic pads compatible with roofing membrane.
 2. Grade Discharge: Set on a bed of compacted fill.
 3. Fire Test Nozzles: Set on traffic pads compatible with roofing membrane.
- 3.4 ROOF FLASHING INSTALLATION
- A. General:
1. Install sheet metal flashing and trim to comply with performance requirements and SMACNA's "Architectural Sheet Metal Manual."
 2. Provide concealed fasteners where possible, set units true to line, and level as indicated.

3. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
 4. Install starter and edge strips, and cleats before starting installation.
 5. Strip in all sheet metal flanges the same day they are installed.
- B. Roof Edge Flashing:
1. Fasten to resist uplift and outward forces specified in Part 1 and as indicated.
 2. Backer Plates:
 - a. Secure with fasteners suitable for substrate, 6-inches O.C. each face.
 3. Interlock bottom edge of roof edge flashing with continuous cleats anchored to substrate at 12-inch centers.
 4. Apply 1/4-inch bead of sealant between each layer of metal at each edge.
 5. Cover Plates:
 - a. Hook front or exposed face of cover plate over drip edge.
 6. Do not use mastic between sheet metal components.
- C. Pipe or Post Counterflashing:
1. Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending a minimum of 4-inches over base flashing. Install stainless-steel draw band and tighten.
- D. Counterflashing:
1. Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing.
 2. Extend counterflashing 4-inches over base flashing.
 3. Lap counterflashing joints a minimum of 4-inches and bed with elastomeric sealant.
 4. Sawcut new reglets where required.
 - a. Provide bayonet style lap joints, minimum 4-inch overlap.
 - b. Fill voids between wedges with backer rod.
 - c. Seal receiver to vertical face of wall.
 5. Secure in a waterproof manner by means of snap-in installation and sealant or plastic wedges and sealant.
 6. Install surface mounted reglets true to lines and levels.
 - a. Seal top of reglets with sealant.
 - b. Secure in place with neoprene head screws at maximum 12-inches on center.
- E. Roof-Penetration Flashing:
1. Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Install flashing as follows:
 2. Install lead flashings at all soil pipe penetrations. Turn lead flashing down inside piping, being careful not to block vent piping with flashing.
 3. Provide Penetration Seal System at all small penetrations not otherwise detailed.
 - a. Clean roof surfaces to receive Penetration Seal Systems.
 - b. Clean pipes and penetrating elements to remove plastic cement, bitumen, and other contaminants by wire brushing and scraping.
 - c. Caulk around penetrating elements with curb adhesive.
 - d. Apply beads of curb adhesive to flat side of first precast curb component. Place caulked curb onto roof surface to form half circle around penetrating element.
 - e. Apply beads of curb adhesive to flat side and to scarf joints of second precast curb component. Place second section of curb onto roof surface to form circle with first section. Press scarf joints together firmly and press both sections down.
 - f. Apply continuous bead of curb adhesive around outside edge of curb at roof.
 - g. Fill around penetrating element with pourable sealant to top of curb.

4. Metal Penetration Dams: Install at equipment supports, pipes, conduits, and other items penetrating roof where membrane or penetration flashing cannot be used.
 - a. Roof Penetration Flashing-Pipes: Install at multiple pipes and small pipes and conduit penetrating roof. Fully solder connections and seams.
5. Umbrella Counter flashing (Option for single pipe penetration):
 - a. Install sleeve with deck flanges.
 - b. Fully solder connections and seams.
 - c. Set umbrella in mastic and tighten draw bands.
 - d. Seal top of umbrella with sealant.
6. Pitch Pans:
 - a. Pitch pans filled with roof cement are not allowed.
 - b. Pitch pans with pourable sealants produced by the manufacturer are allowed:
 - 1) Install only where specifically indicated or approved by Consultant.
 - 2) Fill with Pourable sealant to below top of flange.
 - 3) Top off with pourable sealant creating a flow off non-ponding surface.
7. Seal with elastomeric sealant and clamp flashing to pipes penetrating roof except for lead flashing on vent piping.
8. Protect all membrane penetrations as indicated and as recommended in SMACNA and NRCA manuals.

3.5 MISCELLANEOUS FLASHING INSTALLATION

- A. Equipment Support Flashing:
 1. Coordinate installation of equipment support flashing with installation of roofing and equipment. Weld or seal flashing with elastomeric sealant to equipment support member.

3.6 CLEANING:

- A. Leave work clean and free of stains, scrap, debris, and normally in better condition than when project started.
- B. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- C. Clean and neutralize flux materials. Clean off excess solder and sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 07 6200