# PROJECT MANUAL AND INVITATION FOR BIDS

Exterior Masonry Repair
Minsi Hall
Project No. ESU 30-2107

**Contract Nos.:** 

**General Construction 2107.1** 

at

# EAST STROUDSBURG UNIVERSITY OF PENNSYLVANIA

Monroe County East Stroudsburg, PA 18301-2999

of the State System of Higher Education Commonwealth of Pennsylvania Harrisburg, Pennsylvania

Office of the Chancellor

**December 20, 2024** 

# **TABLE OF CONTENTS**

		Page Numbers
Solicitation for Construct	<u>ion</u>	
Special Instructions to I General Instructions to Bid Form Bid Bond Form MBE/WBE & VB/SDVB MBE/WBE & VB/SDVB Contractor's Qualification	Requirements Instructions Solicitation Form	1 - 2 1 - 8 1 - 4 1 - 2 1 - 4 1 - 3 1 - 6
Contract Form		
Standard Form of Cont Contract Bond Form General Conditions Insurance Rider Prevailing Wage Repor		1 - 4 1 - 6 1 - 35 1 - 3 1 - 9
Technical Specifications		
Section 012900, Pa Section 013100, Pr Section 013119, Pr Section 013200C, On Section 013300, Su Section 013500C, Section 014500, Qu Section 015000B, The Section 016000, Pr Section 016200, Pr Section 017123, Find Section 017329, Cu Section 017700, Cl Section 017823 Op Section 017836 Wa	ammary of Work nit Prices ternates contract Modification Procedures ayment Procedures oject Management and Coordination oject Meetings Construction Progress Documentation abmittal Procedures Safety and Health Requirements cuality Control Temporary Facilities and Controls roduct Requirements roduct Options eld Engineering atting and Patching oseout Procedures peration and Maintenance Data	1 - 8 1 - 3 1 - 1 1 - 6 1 - 8 1 - 5 1 - 4 1 - 3 1 - 6 1 - 5 1 - 4 1 - 3 1 - 3 1 - 3 1 - 3 1 - 3 1 - 3 1 - 3 1 - 3
GENERAL CONSTRU	CTION (CONTRACT NO. 2107.1)	
Division 02 – Sitework Section 02 4116	Selective Demolition	1 – 5
Division 04 – Masonry Section 040110 Section 040120.63 Section 040519	Masonry Cleaning Brick Masonry Repair Masonry Anchoring & Reinforcing	1 – 4 1 – 6 1 – 4

Division 05 – Metals
Section 05 1200 Structural Steel Framing 1 – 10

Division 07 – Thermal & Moisture Protection
Section 07 6526 Self-Adhering Sheet Flashing 1 – 6

Division 09 – Finishes
Section 09 9113 Exterior Painting 1 – 3

# **Drawings**

CS Cover Sheet
A101 Exterior Elevations
A102 Details

#### **SPECIAL INSTRUCTIONS TO BIDDERS**

#### **PROJECT INFORMATION**

Project Title: Minsi Hall Façade Renovations

Project No: ESU 30-2107

Location: East Stroudsburg University of PA

200 Prospect Street

East Stroudsburg, PA 18301

Project Scope: The Project involves renovations to the exterior masonry facade of Minsi

Residence Hall at East Stroudsburg University. Scope includes but is not limited to providing all manpower, materials and equipment, man-lifts, scaffolding and necessary protections for the safe removal and replacement of displaced brick, joint repairs, deteriorated steel relief angles and associated supports as designated along the building

exterior.

Contract Time: see Standard Form of Contract

Prevailing Wages: Yes; The Prevailing Minimum Wage Determination for this Project is Serial

Number 24-10592, dated 12/10/24.

Liquidated Damages: Yes; see Standard Form of Contract

Contract Cost Ranges: General Construction \$2,000,000 to \$2,500,000

Directions: https://www.esu.edu/about/index.cfm

**BIDDING INFORMATION** 

Issuing Office East Stroudsburg University

Facilities Management Office

118 Normal Street

East Stroudsburg, PA 18301-2999

Contracting Officer: Antonio Orlando Jr.

Manager, Facilities Procurement & Plant Assets (570) 422-3498, Email: aorlando@esu.edu

Design Professional: MKSD Architects

1209 Hausman Road, Suite A

Allentown, PA 18104 (610) 366-2081

Plans and Specs: Available for download at the SourcePoint Bid Event. Bidders must obtain

all bid documents from the SourcePoint Bid Event and not other bid

exchanges to be eligible to submit a bid proposal.

Bids Due Date/Time: 2:00 PM (local time) on Wednesday, January 29, 2025

Method of submission of bids for this IFB (see Sections

1 and 7 of the General

Instructions to Bidders): By upload of electronic documents to SourcePoint Bid Event

Pre-bid Conference Date/Time: 10:00 AM (local time) on Tuesday, January 7, 2025

Mandatory or not: Attendance at Pre-Bid Conference is Mandatory

Location: East Stroudsburg University

**Facilities Management Complex** 

118 Normal Street

East Stroudsburg, PA 18301

Site Visits: Attendance at the Site Visit is mandatory. To be held at end of Pre-Bid

Conference. Additional Site Visits may be pre-arranged by contacting the University Project Manager, Sandra Szabo, (610) 483-0696, Email

sszabo@boyleconstruction.com

Point of Contact: University Project Manager Sandra Szabo, (610) 483-0696,

Email: sszabo@boyleconstruction.com

Submit Pre-Bid Questions by posting them at the Message Board

Cut-off Date for Pre-Bid Questions: 2:00 PM (local time) on Wednesday, January 15, 2025

REAAs for Small Diverse Business (SDB) proactive solicitation:

General Construction 5% of Base Bid 1

Bid Security Required: 5% of bid price

Bid Security Allowed: Bid Bond only

Bid Period: Bids shall be valid for not less than 60 days

Items Required to be

Submitted with the Bid: Bid Form

Bid Bond and/or other bid security

Small Diverse Business (SDB) Solicitation Form and supporting documents

Licenses, certifications, etc. to be submitted with bid

**Financial Statement** 

Contractor's Qualification Statement (A305)

Performance, Payment, and Maintenance Bonds

Required with the Contract: 100% of awarded Contract Price

#### **GENERAL INSTRUCTIONS TO BIDDERS**

# 1. Ariba Discovery - SourcePoint Bid Event

The System uses the Ariba Discovery web-based platform for public notice for Invitations for Bids (IFBs). Specific instructions related to the SourcePoint Bid Event are posted online. The bid documents take precedence over any online instruction.

Detailed information about submission and acceptance of bids is addressed in Section 7 below.

# 2. Responsibility of the Bidder

It is the responsibility of the bidders by careful examination of the Contract Documents to satisfy themselves as to the nature and location of the Work, as well as all environmental conditions that may affect performance of the Work. All bidders should visit the site to thoroughly familiarize themselves with the existing conditions. If any discrepancies should be found between existing conditions and the Contract Documents, prospective bidders shall report these discrepancies to the System for clarification prior to submitting a bid. Requests for interpretation of the Work to be performed shall be submitted in writing to the System or the System's designated representative. Failure of the bidder to visit the site, recognize and take into account in their bid site conditions that affect the Work, shall not be considered sufficient cause for any increase in the agreed-upon contracted amount. If subsurface drilling or other exploration has been performed at the Project site, information resulting from such drilling and/or exploration and provided to the System in forms and/or subsurface drilling reports is included in the Technical Plans and Specifications.

# 3. Incurring Costs

The System is not liable for any cost or expenses incurred by bidders or prospective bidders in the preparation of their bids or for attendance at any conferences, meetings, or site visits related to this IFB.

## 4. Restriction of Contact

From the issue date of this IFB until a final contract award has been made, all contacts with Commonwealth personnel concerning this IFB must be made only through the Issuing Office or other specific representatives identified for the IFB on SourcePoint Bid Event.

#### 5. Addenda to the IFB

If it becomes necessary to revise any part of this IFB, Addenda will be issued. If Addenda are issued, all terms and conditions that are not changed remain. Bidders shall acknowledge on the Bid Form all Addenda, identified by the numbers and dates of those Addenda. Bidders are responsible for ensuring they are aware of all Addenda prior to submitting their bid.

## 6. Questions and Answers to the IFB

The SourcePoint Bid Event provides a message board for on-line questions and answers. The System will post answers to questions, as applicable. If there are a significant number of questions and/or complex questions/answers, the answers may be consolidated and provided in an Addendum. Posted answers shall be considered official, as if included in an Addendum. Answers will be posted in a timely-enough manner

for bidders to be able to adequately consider them. Bidders are responsible for ensuring they are aware of all posted answers prior to submitting their bid.

#### 7. Submission and Acceptance of Bids

Bids shall be entered on the Bid Form provided elsewhere in this IFB. The completed Bid Form shall be PDF format, and uploaded to the SourcePoint Bid Event not later than the bid due date and time to be considered as responsive to the bid requirements. **Bidders submitting bids for more than one separate prime contract shall prepare and upload separate Bid Forms**.

All other items required to be submitted with the bid shall be PDF format and uploaded in the same manner and at the same time as the Bid Form. Items may be separate PDF files, or combined into one PDF file; or may be combined into one PDF file with the Bid Form. If separate PDF files are used, however, they must be gathered into a Zip file for uploading. Bidders submitting bids for more than one separate prime contract shall prepare, scan, and upload separate items for each separate prime contract.

The apparent low bidder may be asked to submit one (1) original hard copy of their Bid Form, and one (1) original hard copy of their bid security, if required for the IFB, with all entries in ink or typewritten and with original signatures, within 48 hours of bid opening date and time. Other items required to be submitted with the bid may also be required to be submitted as original hard copies.

The System will not be responsible if the bidder is not able to upload their scanned PDF Bid Form if the problem is not associated with a failure of Ariba SourcePoint or Discovery itself. Uploaded Bid Forms and other documents which are not readable when accessed by the System will be rejected as non-responsive.

To be considered, bids must be a complete response to the IFB, and must contain all elements required to be submitted with the bid. An omission of prices requested on the Bid Form may be sufficient cause for rejection of the entire bid as non-responsive.

Bidders may submit modifications to their bids at any time before the bid due date and time. Modifications to bids shall be accomplished by withdrawing their bid form and uploading a new bid form. Otherwise, all bids shall be unconditionally accepted without alteration or modification except as authorized in this IFB.

Bids may be withdrawn up to the time of bid opening.

Requests for withdrawal of bids after bid opening based on an erroneous bid and/or a mistake in the bid, in accordance with the Commonwealth Procurement Code 62 P.S. 512(f), must be made within two (2) working days after the date of bid opening.

# 8. Bid Security

If a bid security is required, each bid must be accompanied by a certified check, bank cashier's check, or Bid Bond. Specific bid security required, and the type, for the solicitation is identified on the SourcePoint bid event. Failure to submit bid security, if required, will result in the rejection of the bid as non-responsive. If a check is allowed, it shall be drawn to the order of the System. If a Bid Bond is used as the security, it must be submitted on the System-furnished Bid Bond form, complete with all signatures, seals, and certificate of power of attorney. Failure to use the System Bid Bond form for a bid bond will result in the rejection of the bid as non-responsive. The Bid Bond form is located elsewhere in this IFB.

The bid security will be forfeited if a bid or any part thereof is accepted by the System and the bidder fails to furnish approved performance and payment bonds, if required, and execute the contract within the time frame stated in the Notice of Award.

All bid security not forfeited, except for the two lowest responsive, responsible bidders, shall be released on or before the thirtieth (30th) day after the bid opening. The bid security of the two lowest responsive, responsible bidders, except where forfeiture is involved, will be returned, or released, as appropriate, upon execution of the performance and payment bonds and the contract by the lowest responsive, responsible bidder. In the event no contract is awarded by the System, the bid security of the two lowest responsive,

responsible bidders will be returned, or released, as appropriate, on or about sixty (60) days after the bid opening, unless an extension is agreed upon.

#### 9. Business Certification

The Bid Form contains a Bidder Business Certification section that bidders must complete.

If the bidder is incorporated or organized in a state other than Pennsylvania, the bidder must be registered to do business in Pennsylvania. If the bidder is operating under an assumed or fictitious name, the bidder must have registered that name in Pennsylvania. No contract will be awarded to a foreign (non-Pennsylvania) corporation, LLC, LLP, or LP, or to an assumed or fictitious name, unless the bidder has complied with the registration requirements of Pennsylvania statutes.

Information on business registration in the Commonwealth of Pennsylvania is available from the Pennsylvania Department of State, Bureau of Corporations and Charitable Organizations, 206 North Office Building, Commonwealth Avenue & North Street, Harrisburg, PA 17120.

# 10. Submission of Small Diverse Business (SDB) Participation Information

If applicable, bidders must submit with their bid the required SDB participation information. The SDB Requirements Instructions, and the required SDB Solicitation Form, are located elsewhere in this IFB.

#### 11. Selection for Award

The System intends to award a contract or contracts resulting from this IFB to the responsible bidder(s) who submitted a responsive bid(s) which represents the lowest price to the System based on the bid evaluation plan.

If unit-priced bid items are included on the Bid Form, the System reserves the right to make an award on any item for a quantity less than the estimated quantity offered.

If the Bid Form includes multiple Bid Items, the System reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the System's best interest to do so.

#### 12. Tie Bids

When two or more low bids are equal in all respects, a recognized simple "game of chance" will be used to determine which equally-eligible bidder is to be awarded the contract. For two equally-eligible bidders, a coin flip or a drawing of straws or lots may be used. For three or more equally-eligible bidders, a drawing of straws or lots will be used. Equally-eligible bidders will have the opportunity to witness the process, if applicable.

#### 13. Unbalanced Bids

The System may reject a bid as nonresponsive if it is materially unbalanced as to prices for the basic requirement, any unit prices, and/or any options. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more Bid Form line items is significantly overstated or understated. A bid may be rejected if the System determines that the lack of balance poses an unacceptable risk to the System.

# 14. Apparent Clerical and Other Mistakes on the Bid Form

For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the Bid Form as submitted by the bidder:

- a. Obviously misplaced decimal points will be corrected.
- b. For a discrepancy between a unit price and its extended price, the unit price will govern.
- c. Apparent errors in extension of unit prices will be corrected.
- d. Apparent errors in addition of lump-sum and extended prices will be corrected.

In the case of a discrepancy between written words and numbers, the written words will govern.

## 15. System's Right to Reject Bids

The System reserves the right to reject any bid if it shows any omission, alteration, addition, or deduction not called for; if it contains substitutions or exceptions; if it is conditional or represents an uninvited alternate bid; or if it contains irregularities of any kind. The System reserves the right, however, to waive technical defects or minor irregularities. Additionally, in the event a bidder fails, refuses, or neglects to provide any requested information or documents within the time stated in this IFB or upon the System's request, the System will have the right to reject their bid as non-responsive.

The System reserves the right to reject at any time all bids received.

# 16. Anti-Bid-Rigging

The bids of any bidder or bidders who engage in collusive bidding shall be rejected. Any bidder who submits more than one bid in such manner as to make it appear that the bids submitted are on a competitive basis from different parties shall be considered a collusive bidder. The System may reject the bids of any collusive bidder upon bid openings of future projects. By submitting a bid, a bidder is certifying that they are not engaged in collusive bidding or bid rigging relative to this bid. Nothing in this section shall prevent a bidder from superseding a bid by a subsequent bid delivered prior to bid opening which expressly revokes the previous bid.

# 17. Reciprocal Limitations Act Requirements

The Reciprocal Limitations Act (62 P.S. 107) is applicable to contracts of \$10,000 and greater.

The Reciprocal Limitations Act requires the System to give bidders a preference against a nonresident bidder from any state that gives or requires a preference to bidders from that state. The amount of the preference shall be equal to the amount of the preference applied by the state of the nonresident bidder.

The following is a list of the states which have been found by the Commonwealth of Pennsylvania to have applied a preference for in-state bidders and the amount of the preference:

Arizona 5% (construction materials from Arizona resident dealers only)

Montana 3%

West Virginia 2.5% (for the construction, repair, or improvement of any buildings)

Wyoming 5%

The Reciprocal Limitations Act also requires the System to give preference to those bidders offering supplies produced, manufactured, mined, or grown in Pennsylvania against those bidders offering supplies produced, manufactured, mined, or grown in any state that gives or requires a preference to supplies produced, manufactured, mined, or grown in that state. The amount of the preference shall be equal to the amount of the preference applied by the other state for that particular supply. The following is a list of states which have

Commonwealth of Pennsylvania to have applied a preference for in-state supplies and the amount of the preference:

Alaska 7% (applies only to timber, lumber, and manufactured lumber products originating in

the state)

Arizona 5% (construction materials produced or manufactured in the state only)

Hawaii 10%

Louisiana 10% (steel rolled in Louisiana)

7% (all other products)

Montana 5% (for residents offering in-state goods, supplies, equipment, and materials)

3% (for non-residents offering in-state goods, supplies, equipment, and materials)

New Mexico 5% Oklahoma 5%

Washington 5% (fuels mined or produced in the state only)

Wyoming 5%

The Reciprocal Limitations Act also requires the System to not specify, use, or purchase supplies which are produced, manufactured, mined, grown, or performed in any state that prohibits the specification for, use of, or procurement of such supplies in or on its public buildings or other works when such supplies are not produced, manufactured, mined, or grown, or performed in that state. The following is a list of the states which have been found by the Commonwealth of Pennsylvania to have prohibited the use of certain out-of-state supplies:

Georgia forest products only

Indiana coal

New Jersey various products, to include but not limited to: chain link fence, portable sanitation

units, glass, glazier supplies, carpet and cushion, shades, upholstery materials and supplies, room air conditioning, electrical supplies, plumbing supplies, hardware supplies, fasteners, lumber, building supplies, audio/visual equipment, fire

extinguishers, fire hose, motor oils, fuel oil, Venetian blinds, and drapes

New Mexico construction

The above lists and amounts of preferences are those related to construction contracts only. The complete list of preferences for all contracts, supplies, and services is available from the Commonwealth of Pennsylvania Department of General Services.

# 18. Nondiscrimination

The System is an equal opportunity employment agency with nondiscrimination/sexual harassment requirements, as contained in the General Conditions for the Construction Contract. It is the policy of the System to award and administer contracts for goods and services in a nondiscriminatory manner, to promote the affirmative participation of minority-owned and women-owned businesses in procurement activities and awards, and to integrate into procurement processes the necessary practices and procedures for the procurement of all goods and services for the System to effectively implement the policy.

#### 19. Debarred Contractors

Contractors currently under suspension or debarment by the Commonwealth, any other state, or the Federal government, are not eligible for award of any contract for this Project. By submitting a bid, a bidder is certifying that they are not currently under suspension or debarment by the Commonwealth, any other state, or the

Federal government. Additionally, contractors shall not contract with or employ any subcontractors, suppliers, or individuals that are currently under suspension or debarment. A current list of suspended or debarred contractors is available by contacting the Department of General Services, Office of General Counsel, North Office Building Room 603, Harrisburg, Pennsylvania 17125.

## 20. Delinquent Payments

By submitting a bid, a bidder is certifying that, to the best of their knowledge, they are not delinquent in the payment of taxes or other levies to the Pennsylvania Department of Revenue, the Pennsylvania Department of Labor & Industry, or any other Commonwealth Agency or entity.

#### 21. Submission of Contractor Qualification and/or Financial Information

Upon request, or if specifically required by the terms of this IFB, the apparent low bidder may be requested to submit a contractor's qualification and/or financial statement within ten (10) calendar days of the bid date, with financial information current within twelve (12) months prior to the bid date, of which statements shall be certified to be true and correct by an affidavit sworn to or affirmed before a notary public or other officer empowered to administer oaths or affirmations.

## 22. Financial Requirements

To be deemed a responsible bidder, the bidder may be required to demonstrate, in relation to the bid price, adequate financial and other resources in order to be able to successfully prosecute the work. Additional information may be requested by the System whenever, in its judgment, such information is necessary to determine the responsibility of the bidder.

#### 23. Contractor Performance Evaluation Systems

The System may utilize a contractor performance evaluation system or tool established by the Department of General Services or by another Commonwealth agency, entity, or instrumentality to obtain past performance information on the bidder. Such information may be used in a determination of the bidder's responsibility.

# 24. Commonwealth of Pennsylvania Contractor Responsibility Program (CRP)

The System may utilize the Commonwealth of Pennsylvania CRP System, as provided for under the Governor's Office's Management Directive 215.9 Amended, Contractor Responsibility Program, dated October 25, 2010, to ensure that the System contracts only with responsible contractors.

#### 25. References and Past Performance

The System reserves the right to contact any and all references provided by the bidder, as well as any of the bidder's past or current clients and/or customers, to glean information on the bidder's past performance and experience. Such information may be used in a determination of the bidder's responsibility.

#### 26. Award of Contract

The System may, solely at its own discretion, award a contract within sixty (60) days from the date of bid opening. A time extension may be made by written consent of the lowest responsive responsible bidder. Award will be consummated by a Notice of Award letter mailed to the Contractor.

The System contemplates award of a firm fixed price contract resulting from this IFB. The contract into which the parties are anticipated entering is the System's Standard Form of Contract for Construction, located elsewhere in this IFB.

The System will provide to the contractor the completed Contract for signature with the Notice of Award letter. The Contract will not become effective until executed by all necessary Commonwealth officials as provided by law.

## 27. Notice to Proceed (NTP)

The System will endeavor to issue the NTP within 120 days of the bid opening. Any delays caused by the contractor's failure to provide any required documents within the specified time will cause an equivalent number of days to be added to this 120-day time frame.

# 28. Performance, Payment, and Maintenance Bonds

Should Performance, Payment, and/or Maintenance Bonds be required, the System will provide to the Contractor with the Notice of Award letter the blank System Contract Bond form. The Contractor's surety company must be authorized to do business in the Commonwealth of Pennsylvania and must successfully demonstrate in writing prior to award that the amount of bond or reinsurance or other security has been obtained in conformance with the Pennsylvania Insurance Company law of 1921, 40 P.S. 832. If specifically required by the terms of this IFB, as indicated in the Special Instructions to Bidders, the Contractor's surety company may be required to be rated at a specific level or better by A.M. Best and Company. Failure of the Bidder to execute the required Performance, Payment, and/or Maintenance Bonds within the time specified may result in payment to the System their bid security, in the amount of the difference between their bid and the next lowest responsive responsible bid, or the bid security amount, whichever is less. The System shall have the right to award the contract to the next lowest responsible bidder.

# 29. PA E-Verify

The Commonwealth of Pennsylvania enacted Act 127 of 2012, known as the Public Works Employment Verification Act ('the Act'), which requires all public work contractors and subcontractors to utilize the Federal Government's E-Verify system (EVP) to ensure that all employees performing work on public work projects are authorized to work in the United States. The Department of General Services' (DGS) Public Works Employment Verification Compliance Program is responsible for the administration, education, and enforcement of the Act. Information on the Act and DGS' program are available on DGS' web site.

Contracts resulting from this solicitation will fall under the Act and the associated DGS compliance program. Contractors will be required to sign and submit to the university, as a pre-condition of being awarded a contract, the Commonwealth of Pennsylvania Public Works Employment Verification Form (the Form). The Form is available on DGS' web site and/or through the university.

#### 30. Investment Activities in Iran

The Commonwealth of Pennsylvania enacted Act 149 of 2014, which prohibits entities which engage in certain investment activities in Iran from entering into a contract with the Commonwealth. Contractors may be required to sign and submit to the university, as a pre-condition of being awarded a contract, a certification stating that they are not on the Department of General Services' list of entities whom the Department determined are engaged in investment activities in Iran, as described in Act 149.

# 31. News Releases

News releases and media contacts regarding this Contract and Project will be made by the System only, unless the System directs otherwise in specific instances. In such instances, the System shall receive prior

review and approval of such releases. In any case, Contractors shall not use the name of the System or any University for promotional or marketing purposes without the System's prior written approval.

## 32. Pennsylvania Right-to-Know Law

Effective January 1, 2009, all responses to this procurement opportunity are subject to the Pennsylvania Right-to-Know Law, 65 P.S. §67.101 et seq., (Act 3 of 2008). The Right-to-Know Law permits any requestor to inspect and/or copy any record prepared and maintained or received in the course of the operation of a public office or agency that is not subject to the enumerated exceptions under the law. If a bidder's/proposer's response to the procurement opportunity contains a trade secret or confidential proprietary information, the bidder/proposer should include with their response a separate signed written statement to that effect. Should the response become the subject of a Pennsylvania Right-to-Know Law request, the bidder/proposer will be notified by the procurement office to identify all trade secrets or confidential and proprietary information that is included in your response. The agency will then determine whether the claimed trade secret or confidential and proprietary information is subject to disclosure.

# 33. Right to Protest

A bidder or prospective bidder or prospective contractor who is aggrieved concerning the solicitation or award of a contract may protest, as provided for in the Commonwealth Procurement Code, 62 Pa C.S. 1711.1. Protests shall be made in writing by submitting the protest to the Office of the Chancellor, State System of Higher Education, 2986 North Second Street, Harrisburg PA 17110. A copy of the protest shall be mailed simultaneously to the Contracting Officer identified for the solicitation on the SourcePoint bid event. All protests must be received within seven (7) calendar days after the protestant knew, or should have known of the facts giving rise to the protest. If a protest is submitted by a prospective bidder, the protest must be received prior to the bid opening date/time. If a protestant fails to file a protest or files an untimely protest, the protestant shall be deemed to have waived its right to protest the solicitation or award of the contract in any forum. Untimely filed protests will be disregarded. A protest must state all grounds upon which the protestant asserts the solicitation or award of the contract was improper. The protestant may submit with the protest any documents or information it deems relevant to the protest. Upon receipt and evaluation of the protest, the Office of the Chancellor will render a written decision, in accordance with the procedures outlined within the Commonwealth Procurement Code.

# **BID FORM**

BID FOR:		
Contract No.	ESU 30-2107	
Title of Project	Minsi Hall Façade Renovations	
Location	Minsi Hall, East Stroudsburg University of Pennsylvania	
BID FROM:		
Firm Name		
Federal ID No.		
Address		
Telephone		
Fax		
E-mail		
Name of Conta	ct for this Bid	
specified in the	ees to perform the work specified in the Contract Documents, Contract Documents, without exceptions or substitutions, and d conditions attached hereto, for the prices proposed on this E	d under any required additiona
The Bidder add	itionally certifies that requirements in the Instructions to Bidde	rs are met.
	nowledges the Addenda hereinafter enumerated, which have agrees that contents of said Addenda shall become incorpora	
Ado	denda No. Date Issued	
		_
		_
		_
		_

# **BASE BIDS**

# BASE BID NO. 1 (General Construction 2107.1)

Item No.

1

Description

Additional brick replacement

	Dollars \$
(WRITTEN)	(FIGURES)

2 Additional brick pointing 10 LF \$\_\_\_\_\_

10

Estimated

Quantity

Unit

<u>Unit</u>

SF

Price

Unit Prices being accepted and becoming binding will be indicated on the final Standard Form of Contract.

# **BIDDER'S BUSINESS CERTIFICATION**

TYPE OF BUSINESS (check one of the three options below, and circle the correct entries within)	
☐ The Bidder is a Pennsylvania Corporation, LP, LLP, or LLC <i>(circle one)</i> , organized and exist under the laws of Pennsylvania, and so is authorized to do business in Pennsylvania by Pennsylvania Business Corporation Law of 1988, as amended.	_
The Bidder is a Foreign Corporation, LP, LLP, or LLC (circle one), organized and existing under laws of the state of(enter the name of the state), and has or has not (circle one) been granted a certificate of authority, or is or is not (circle one) registered, to do business Pennsylvania as required by the Pennsylvania Business Corporation Law of 1988, as amended.	ircle
☐ The Bidder is an Individual, Proprietorship, Partnership, or other <i>(circle one)</i> , trading undefictitious or assumed name, and has or has not <i>(circle one)</i> registered under the Pennsylvania Fictiti Names Act of 1982, as amended.	
RESIDENCY (complete one of the two options below)  Does your firm have a street address in Pennsylvania at which it was transacting business when Notice to Contractors for this contract was issued?  If "Yes", insert the address, or insert "same as address on page 1."	the
If "No," insert the address of the office responsible for this bid, or insert "same as address on page	÷ 1."
(In either case, provide a street address in lieu of a post office box.)	

# **BID SIGNATURE PAGE**

# **CERTIFICATIONS**

The person(s) signing below certifies that:

- he/she(they) is(are) authorized to represent the Bidder and bind the Bidder to this bid,
- and, the information contained in or with this bid is true and correct, and that this information is material and important and will be relied upon by the System in awarding the contract for which this bid is submitted.

If the Bidder is an Individual, Proprietorship, or Partnership: (one signature and one witness signature required)				
(Signature)	(Witness)	_		
(Date)				
If the Bidder is a Corporation, LP, LLP, or LLC: (two signatures required)				
(President/Vice President)	(Secretary/Treasurer)	_		
(Date)				
	(CORPORATE SEAL)			

#### **BID BOND**

(Bid Bond must be submitted on this form; all blanks must be completed)

Bond No	
Amount \$	
KNOW ALL MEN BY THESE PRESENTS, that we	
(hereinafter called the "Principal") as Principal and	
and authorized to transact business in Pennsylvan	s of the State/Commonwealth of, ia, as Surety, (hereinafter called the "Surety"), are held gher Education, Pennsylvania (hereinafter called the
for the payment of which sum, well and truly to be	Dollars (\$) made, we, the said Principal, and the said Surety, bind ors, and assigns, jointly and severally firmly by these
Sealed with our seals and dated this day of	f, ,
WHEREAS the Principal has submitted a bid upon	Contract No.
for	

NOW, THEREFORE, the conditions of these obligations are such that if the Principal shall not withdraw its bid prior to the expiration of the award period after the opening of the bids; and shall comply with all requirements set forth in the "Invitation For Bids", in the "Instructions to Bidders", and on the "Bid Form"; and if the said contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the contract in writing, and give bond, with Surety acceptable to the Obligee, covering the faithful performance of the said contract, payment of claims for labor, material, and equipment rental, comply with the warranty provisions, and the remedy of defective workmanship or material for one year after the date of completion, all of which shall be supplied on the forms as specified by said Obligee; or if the Principal shall fail to do so, pay to the Obligee the lesser of the following amounts: 1) the amount of this bond as hereinabove set forth, or 2) the difference between the amount specified in the Principal's bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid including the administrative cost to effect such contract, then this obligation shall be void; otherwise to remain in full force and effect.

If the Bidder is an Individual, Proprietorship, or Partnership: (one signature and one witness signature required)				
(Signature)	(Witness)			
(Date)				
If the Bidder is a Corporation, LP, LLP, or LL (two signatures required)	C:			
(President/Vice President)	(Secretary/Treasurer)			
(Date)	(CORPORATE SEAL)			
SURETY (include title of Signatory)				
	(SURETY SEAL)			

# INSTRUCTIONS FOR BID BOND:

The names of the Principal and the Surety on the front page must include a street address.

The Surety must attach to the Bid Bond a Power-of-Attorney, which must be dated to match the date of the Bid Bond, and showing that the person signing the Bid Bond for the Surety has current authority to do so.

# SMALL DIVERSE BUSINESS (SDB) REQUIREMENTS INSTRUCTIONS

## 1. Scope

These SDB Requirements Instructions are applicable for construction contracts procured and administered by the System. These SDB Requirements Instructions are unique to the System.

The SDB Requirements Instructions and the processes contained herein have been implemented as an interim program by the System and may be changed in the future.

#### 2. Definitions

The following words or terms are defined as stated when used herein, unless clearly indicated otherwise.

Diverse Business: a business which meets the requirements of one or more certifications from third party entities, as recognized by the Pennsylvania Department of General Services (DGS), to qualify it as a Minority Business Enterprise, a Woman Business Enterprise, a Veteran Business Enterprise, a Service-Disabled Veteran Business Enterprise, a Disability-Owned Business Enterprise, or an LGBT Business Enterprise.

Small Business: a business which meets the requirements of the DGS Small Business Procurement Initiative for self-certification as being Small.

SDB: Small Diverse Business; a Diverse Business which also is a Small Business.

Verified SDB: an SDB verified as such by DGS, and in the DGS SDB database. Hereinafter, Verified SDB are simply referred to as SDB, in both the singular and the plural.

Non-SDB Firm: A business that cannot be classified, or has not been verified or certified, as an SDB.

REAA: Reasonable Effort Award Amount; that amount of the work under a construction contract for which competitive quotes can reasonably be expected to be obtained from SDB subcontractors, suppliers, and/or vendors. The REAA is expressed as a percent, applied as a percentage of the prime bidder's bid (usually applied against Base Bid No. 1), or as a dollar amount.

Proactive Solicitation: Aggressive effort taken by a prime bidder to obtain written quotes from SDB subcontractors, suppliers, and/or vendors, which the prime bidder can then submit with his/her bid so as to reach or exceed the REAA for the Contract.

Commitment: A conditional written promise that a subcontractor's, supplier's, and/or vendor's written quote given at the time of bid will be honored, in at least the amount quoted, or in a lesser amount if acceptable by mutual negotiations, for the scope of work and/or materials specified.

Subcontract: The term subcontract shall include subcontracts for construction services, purchase orders for construction materials and/or equipment rental, or some combination of the two, or similar arrangements. Hereafter, no distinction is made between subcontract, purchase order, rental agreement, or other similar arrangement. The same applies for subcontractor, supplier, and vendor.

## 3. Proactive Solicitation Policy

Prime bidders submitting bids for System construction contracts shall proactively solicit SDB and encourage them to submit written quotes for portions of the work as subcontractors. If a quote from an SDB is the lowest received for that portion of the work, if that quote is responsive, and if the prime bidder determines that SDB to be responsible, then the prime bidder shall make a commitment to award a subcontract to that SDB.

# 4. Acceptable Proactive Solicitation

An REAA for each Separate Prime contract is established by the System and is provided in the Special Instructions to Bidders. The REAA is based on the scope of work of the project and contract, and the current demographics concerning ready, willing, and able SDB subcontractors in an appropriate geographic area.

An acceptable proactive solicitation effort by a bidder is considered to be, at a minimum, solicitation effort such that competitive quotes totaling the REAA could reasonably be expected to be received from SDB.

- a. Normally, it takes multiple solicitations in order to reasonably expect to receive a quote. The number of solicitations that may be needed varies, depending on the size of the project, the scope of work being solicited, the dollar value of the work being solicited, the location of the project, the location of the SDB being solicited, etc.
- b. In some cases, it may take solicitations of various scopes of work of lesser value to total the value of the REAA. In such a case, multiple solicitations for each scope of work would most likely be required.

Evidence of proactive solicitation is considered in determining the responsiveness of a bid. A bidder shall be considered to have fulfilled the requirement to conduct acceptable proactive solicitation in one of the following three ways. All actions shall be as of the time of bids.

- a. If the bidder makes commitments to SDB at or above the REAA at the time of bids, the bidder will be considered to have met the proactive solicitation requirements.
- b. If the bidder does not make commitments to SDB at or above the REAA at the time of bids, the bidder must have conducted acceptable proactive solicitation for the value of the REAA, with one, or a combination of, the following occurring.
  - (1) An acceptable proactive solicitation effort was made to obtain quotes from SDB, but written quotes were not received from any of them, and/or
  - (2) A written quote was received from an SDB, but a lower written quote was received from a Non-SDB Firm for the identical scope of work, and a commitment was made to that Non-SDB Firm.
- c. A combination of items a., b.(1), and b.(2) above is acceptable. A portion of the REAA may be fulfilled by commitment to an SDB, with the rest of the REAA being fulfilled through acceptable proactive solicitation.

# 5. Submission Requirements for Evidence of Proactive Solicitation

Bidders must show proof of their proactive solicitation by submitting with their bid a completed SDB Solicitation Form and copies of the following, as appropriate:

- a. All written solicitations to SDB.
- b. All solicited and unsolicited written quotes received from SDB.
- c. Any written quote from a Non-SDB Firm that is lower than the lowest quote received from an SDB, and which is the basis of a commitment to that Non-SDB Firm.
- d. Any letters of commitment to SDB or Non-SDB Firms submitting the lowest written quotes.
- e. Explanatory information, if not obvious from other information submitted, which provides reasons, if known, why written commitments were not made for the lowest written quotes received from SDB, and/or other reasons why the REAA could not be met.

If the prime bidder is an SDB, he/she must indicate on the SDB Solicitation Form that they are a DGS-verified SDB and are in the DGS SDB database. No proactive solicitation or other documentation is required.

#### 6. Determination of Responsiveness

The procurement office issuing the Contract will review the documentation submitted and determine, based on the documentation submitted, whether acceptable proactive solicitation was conducted. If the Contracting Officer determines that the bidder did not perform acceptable proactive solicitation, the Contracting Officer may determine the bid to be non-responsive and reject the bid.

The review and determination will consider, among other things, the following requirements:

- If the SDB Solicitation Form was fully completed, and if all supporting documents were included.
- If the bidder listed all those SDB to which solicitations were made.
- If the bidder identified the scope of work and/or materials solicited from each SDB.
- If the bidder contacted SDB directly and requested written quotes for specific work or materials.
   Mailings to large numbers of SDB which are intended to provide notice of a bidder's interest in bidding a construction project may be deemed to not be acceptable proactive solicitation.
- If the bidder provided sufficient time for SDB to properly prepare quotes.
- If the bidder submitted all solicited and/or unsolicited quotes from SDB.

The review and determination may also include, among other things, the following considerations.

- Did the bidder solicit a varied selection of SDB which appear to be categorized as performing the required subcontracting effort?
- Did the bidder solicit appropriate scopes of work to the various SDB? Scopes of work that are too small, oddly organized, or cut out of a larger scope may not be of interest to some SDB; scopes of work that are too large or include other trades or specialties may not be within the capacity of some SDB.
- Did the bidder solicit SDB in a geographic locale such that they would reasonably be expected to quote on the project, or outside that locale? Did the bidder make an effort to solicit all the appropriate SDB within a reasonable geographic locale, or simply solicit a set number?
- Was the bidder supportive of solicited SDB in order to obtain their quotes? Was the scope of work being solicited clear? Did the solicitation indicate where and how the plans and specifications could be reviewed? Was the time for submitting a quote clear and adequate?
- How many quotes did the bidder get from SDB, even if some or all of them were not competitive? How many quotes were received, and what percent of the REAA did they represent? If quotes were received, depending on the number and percent, the proactive solicitation effort may not be required to be as demanding as if no bids or quotes were received.
- Was the bidder able to make some commitments to SDB, even if at below the REAA? For what percent of the REAA were commitments made? If commitments were made, depending on that percentage, the proactive solicitation effort for the remaining dollar value to reach the REAA may not be required to be as demanding as if no commitments were made.
- Did the bidder receive a low quote from an SDB, but that SDB then refused a commitment?
- How clear and convincing is the bidder's explanatory information as to why he/she was otherwise not able to meet the REAA?

#### 7. Contractual Obligations

The bid of the successful bidder, including the completed SDB Solicitation Form and accompanying documents regarding solicitation and commitments to SDB, shall be considered as incorporated in, and become contractual obligations under, the terms and conditions of the Contract awarded to that bidder.

If an SDB submits a quote that is the lowest quote for a specific scope of work and/or materials, the successful bidder is obligated to offer a commitment, at the time of bids, in the amount quoted to that SDB, but only to the extent that there is an agreement as to the scope of work and/or materials specified at the time of bids. The successful bidder may, however, offer a commitment to an SDB whose quote was not the lowest quote.

If accepted by an SDB, a commitment to that SDB made at the time of bids must be culminated with a subcontract or purchase order of at least the dollar value of the commitment, unless otherwise agreed upon by the SDB. If a commitment is not accepted by the SDB, a commitment may be made to any other qualified subcontractor without penalty of invalidating the bidder's SDB proactive solicitation.

The System will send copies of the successful bidder's Notice of Award letter, or other notification, to those SDB who presented the lowest quotes and/or received commitments from the successful bidder at the time of bids. These copies will serve as notice to those SDB to anticipate award of subcontracts for the project.

Failure to follow the above procedures constitutes a potential breach of the requirements of the Contract, and may be grounds for termination of the Contract. In any event, the Contract Sum will not be adjusted to accommodate rejected commitments made to subcontractors to satisfy SDB requirements.

Other contractual requirements relative to the SDB program are in the Standard Form of Contract and the General Conditions for the Contract.

# STATE SYSTEM OF HIGHER EDUCATION, COMMONWEALTH OF PENNSYLVANIA SMALL DIVERSE BUSINESS (SDB) SOLICITATION FORM Project Information Contract Number: **Bidder Information** Company Name: Project Name: Address: Location: Contact Person: REAA: E-mail: Telephone: ( Scope/Materials Firms Solicited SDB or **Estimated** Date Quotes Commitments Non-SDB Value **Solicited** Rec'd Amount Attached Made Attached Y/N Y/N Y/N Y/N

#### **Instructions for SDB Solicitation Form**

**Bidder Information:** Self-explanatory. The Contact Person should be the person familiar with the information on the Form. If the prime bidder itself is an SDB, state so on the form. SDBs must be in the PA DGS SDB database. If the prime bidder is an SDB, no proactive solicitation is required.

**Project Information:** Self-explanatory. The REAA for each contract is specified in the Special Instructions to Bidders.

Firms Solicited: All SDB who were solicited must be listed. List the SDB firm's name and address, along with the name and telephone number of the person contacted at the SDB. Additionally, any Non-SDB Firm who was solicited for the same scopes of work and/or materials for which SDB were solicited, and from whom a written quote was received that is lower than the lowest quote received from an SDB and which is the basis of a commitment to that Non-SDB Firm, must be listed. However, any Non-SDB Firm who was solicited for the same scopes of work and/or materials for which SDB were solicited, and from whom a written quote was not received, or from whom a written quote was received but which is not the basis of a commitment to that Non-SDB Firm, need not be listed. Solicitations for scopes of work and/or materials which did not include any SDB need not be listed.

SDB or Non-SDB: Identify whether the firm is an SDB or not. SDBs must be in the PA DGS SDB database.

**Scope/Materials:** List the scope of work and/or materials solicited. Use the Technical Specification Division number, if possible and appropriate.

**Estimated Value:** Identify your (the prime bidder's) estimate of the value of the scope of work and/or materials being solicited. Credit towards the REAA is only given once for each scope of work and/or materials being solicited. Multiple solicitations for the same scope of work and/or materials are encouraged, but multiple solicitations for the same scope of work and/or materials cannot count more than once for the cumulative REAA.

Date Solicited: Identify the date the solicitation was issued. Attach written evidence of that solicitation (letter, fax, or e-mail).

**Quotes:** Identify whether or not a quote was received from the solicited firm. Identify the dollar value of that bid or quote. Indicate whether written evidence of that quote (letter, fax, or e-mail) is attached. Negative responses from solicited SDB (letter, fax, or e-mail) should also be attached.

**Commitments:** Identify whether or not your firm made a commitment based on the solicitation. Indicate whether the commitment letter, either to an SDB or to a Non-SDB Firm, is attached.

**Use Multiple Sheets and/or Continuation Sheets if Necessary** 

SDB SOLICITATION FORM CONTINUATION SHEET										
Bidder (Company Name): Project (Contract Number):										
Firms Solicited	SDB or Non-SDB	Scope/Materials	Estim Value	timated	d Date Solicited	Quotes			Commitments	
						Rec'd	Amount	Attached	Made	Attached

# **EAST STROUDSBURG UNIVERSITY**

# **Contractor's Qualification Form**

NAME:
ADDRESS:
PRINCIPAL OFFICE (if different from address above):
TVDE OF ODGANIZATION (similar annumanista antanam)
TYPE OF ORGANIZATION (circle appropriate category):
Corporation Partnership Individual
FEDERAL ID NO:
TELEPHONE NO:
FAX NO:
WEBSITE ADDRESS (URL):
POINT OF CONTACT NAME:
Title:
Email Address:
IS YOUR COMPANY A <u>DGS</u> VERIFIED SMALL DIVERSE BUSINESS (SDB)? IF YES, CIRCLE APPROPRIATE CATEGORY AND PROVIDE REGISTRATION #:
Minority-Owned Business Enterprise (MBE)
Women-Owned Business Enterprise (WBE)
Veteran-Owned Business (VB)
Service-Disabled-Veteran-Owned Business (SDVB)

# TYPE OF WORK (circle all that apply):

General Construction **HVAC Construction** Plumbing Construction **Electrical Construction** Other (specify):

# **ORGANIZATION**

- 1. Number of years your company is in business as a contractor?
- 2. Number of years your company is in business under its current name?
  - a. What other or former names has your company used?
- 3. If your company is a corporation:
  - a. Date of incorporation:
  - b. State of incorporation:
  - c. President's name:
  - d. Vice-president's name:
  - e. Secretary's name:
  - f. Treasurer's name:
- 4. If your company is a partnership:
  - a. Date of organization:
  - b. Type of partnership (if applicable):
  - c. Name(s) of general partner(s):
- 5. If your company is individually owned:
  - a. Date of organization:
  - b. Name of owner:
- 6. If the form of your company is other than those listed above, describe it and name the principals:
- 7. Is your company currently under suspension or debarment by the Commonwealth of PA, any other state, or the Federal government? YES or NO (circle)

Form FRC-2016 Rev. 4/16 Page 2 of 6

# **LICENSING**

1.	List jurisdictions and trade categories in which your company is legally qualified to d business, and indicate registration or license numbers.
2.	List jurisdictions in which your company's partnership or trade name is filed.
EXPER	RIENCE
1.	List the categories of work that your organization normally performs with its own workforce
2.	Claims and Suits. (If the answer to any of these questions is yes, provide details).
	a. Has your company ever failed to complete any work awarded to it?
	<ul> <li>Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your company or its officers?</li> </ul>
	c. Has your company filed any law suits or requested arbitration with regard to construction contracts with the last five years?
3.	Within the last five years, has any officer or principal of your company ever been an office or principal of another company when it failed to complete a construction contract? (If the answer is yes, attach details).

List major construction projects your company has in progress, giving the name of the project, owner, architect, contract amount, percent complete and scheduled completion date. (Use a separate sheet if necessary).	) 1
a. State total worth of work in progress and under contract:	
List the major projects your company has completed in the past five years, giving the name of the project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own workforce. (Use separate sheet if necessary).	
a. State average annual amount of construction work performed during the past five years:	
	a. State total worth of work in progress and under contract:  List the major projects your company has completed in the past five years, giving the name of the project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own workforce. (Use separate sheet if necessary).

EFER	RENCES	
1.	Trade References:	
2.	Bank References:	
3.	Surety:	
	a. Name of bonding company:	
	h Name and address of agent	
	b. Name and address of agent:	
	c. Is surety registered in Pennsylvania?	Yes or no (circle) If yes, provide Registration #

# **CERTIFICATION**

I state that (name of Bidder):
understands and acknowledges that the above representations are material and important, and will be relied on by the State System of Higher Education in awarding the contract(s) for which this bid is submitted. I understand, and my firm understands, that any misstatement shall be treated as fraudulent concealment from the State System of Higher Education of the true facts relating to the submission of this bid. I also certify I have signature authority for this firm.
Signature:
Signatory's Name:
Signatory's Title:
Sworn to and subscribed before me this day of
Notary Public
My commission expires:

# STANDARD FORM OF CONTRACT FOR CONSTRUCTION BETWEEN THE SYSTEM AND THE CONTRACTOR

This Contract is made and en			ed into this	 nsvlvania	day of a, by and between	, 20,	
		East 2 East of the State Commo	Stroudsburg 200 Prospec Stroudsburg System of conwealth of after called	g Univers t Street g, PA 18 Higher E Pennsyl	sity 301 Education vania		
and							
Contractor's Nameaddressaddress a corporation/LP/LLP/LLC/partnership/etc. organized in the state of Federal I.D. No, hereinafter called the "Contractor."							
CONTRAC	T SUM AND	DESCRIPTION					
						cuments for the sum of e section Contract Time	
Contract No	).	ESU 30-2107					
Base Bid(s)	Awarded			_			
Prime Contract		General Construction					
Project Name		Minsi Hall Façade Renovations					
University/Location		East Stroudsburg University, Minsi Residence Hall					
UNIT PRIC	ES						
The following	ng Unit Price	s, submitted by the (	Contractor o	n the Bi	d Form for this Con	tract, are agreed upon:	
Item No. Description			Quantity	<u>Unit</u>	Price		
1	1 Additional brick replacement		10	SF	\$		
2 Additional brick pointing		10	LF	\$			
EFFECTIVE	E DATE OF (	CONTRACT					

The parties hereto, intending to be legally bound, hereby do agree that this Contract shall not be effective

until executed by all necessary Commonwealth officials as provided by law.

#### **CONTRACT TIME**

The date for commencement of the Work is the date of the Notice to Proceed. On-site Work shall commence May 12, 2025.

The Contractor shall prosecute the Work diligently and substantially complete the Work (Substantial Completion) not later than August 1, 2025.

#### LIQUIDATED DAMAGES

If the Contractor fails to complete the Work within the Contract Time specified in this Contract, including any and all approved extensions or adjustments thereto that are properly executed under the procedures outlined by the Contract, the Contractor shall pay liquidated damages, not as a penalty, to the System in the amount of \$1,000 dollars for each calendar day of delay until the Work is substantially completed and accepted.

#### **PREVAILING WAGE**

This Project is subject to the Pennsylvania Prevailing Wage Act, 43 P.S. § 165-1 et seq, as amended.

#### **DESIGN PROFESSIONAL**

The System's Design Professional for this project is:

MKSD Architects 1209 Hausman Road, Suite A Allentown, PA 18104 (610) 366-2081

#### **CONSTRUCTION MANAGER**

The System's Construction Manager for this project is:

None

#### OTHER SYSTEM REPRESENTATIVES

None

#### NOTICE

Unless otherwise specifically identified by any provision of this Contract, a notice shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, or delivered by a nationally-recognized express mail service, charges prepaid, receipt obtained, to the persons signing this contract and at the addresses captioned on Page 1 of this Standard Form of Contract, or to such other persons or addresses as are specified by similar notice.

#### **COMMITMENTS TO SMALL DIVERSE BUSINESSES (SDB)**

The Contractual obligations in the SDB Requirements Instructions, and the bid proposal of the Contractor, including the completed SDB Solicitation Form and accompanying documents regarding commitments to SDB, shall be considered as incorporated in and become contractual obligations under the terms and conditions of this Contract.

If requested by the System, the Contractor shall submit copies of any subcontracts and/or purchase orders which execute commitments made to SDB which support the Reasonable Effort Award Amount (REAA).

Subcontracts and/or purchase orders that are executed with SDB that support the REAA must continue throughout the life of the Contract and be completed at that level, or higher, unless agreed upon by the SDB. If the Contractor anticipates that the final subcontract and/or purchase order amounts will not be completed at the level of the commitment or higher, the Contractor shall notify the System.

The Contractor shall submit separately with each application for payment an accounting of how much each SDB supporting the REAA was paid as part of previous payments, and how much of the current payment is to go to each of those SDB.

#### LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN (LEED)

Not Applicable

#### **CONTRACT DOCUMENTS**

The terms, conditions, requirements, and considerations of this Contract are specified in the Contract Documents. The Contract Documents include this Standard Form of Contract plus the following:

Contract Bond consisting of 6 pages **General Conditions** consisting of 35 pages Insurance Rider consisting of 3 pages Specifications and Drawings (incorporated by reference) Table of Contents attached The following are also incorporated as part of the Contract by reference: Contractor's completed Bid Form, dated \_\_\_\_\_\_, submitted for this Contract Contractor's completed SDB Solicitation Form and associated commitments to SDB subcontractors/suppliers submitted with the Contractor's completed Bid Form for this Contract Addenda: \_\_\_\_, dated \_\_\_\_\_ , dated\_\_\_\_\_ \_\_\_\_, dated \_\_\_\_\_

Any Change Orders and Amendments properly executed after the Effective Date of this Contract.

IN WITNESS WHEREOF, this Standard Form of Contract has been executed and delivered as of the date set forth in the caption hereof;

FOR THE CONTRACTO	R	FOR THE COMMONWEALTH			
If the Contractor Is an Individual, Proprietorship, or Pa	artnership	East Stroudsburg University of Pennsylvania, State System of Higher Education			
Individual or Partner printed name	Date	Antonio Orlando Jr. Date Manager of Facilities Procurement & Plant Assets Contracting Officer nametitle Fiscal Officer			
If the Contractor is a Corporation, LP, LLP, or LLC		APPROVED AS TO FORM AND LEGALITY			
President or Vice President printed name	Date	University Legal Counsel Date State System of Higher Education			
ecretary or Treasurer Date		Office of General Counsel Date Commonwealth of Pennsylvania			
		Office of Attorney General Date Commonwealth of Pennsylvania			

- If the Contractor is an Individual, Proprietorship, or Partnership, one signature is required.
- If the Contractor is a Corporation, LP, LLP, or LLC, two signatures are required. One must be the President or Vice President. The second must be the Secretary or Treasurer.
- The Contractor can delegate signatory authority to other individuals by means of a certified Board Resolution presented with this Standard Form of Contract.

# COMMONWEALTH OF PENNSYLVANIA STATE SYSTEM OF HIGHER EDUCATION

# **CONTRACT BOND**

(Contract Bond must be submitted on this form; all blanks must be completed.)

Bone	d No.:					
University:			University of Pennsylvania			
Con	tract No.:					
Proj	ect Name:					
We th	e undersig	ned				
(Name	of Contracto	r)				
(Addres	ss)					
as Pri	ncipal, and	I				
(Name	of Surety)					
(Addres	ss)					
busine	ess in Peni	nsylvania, as 🤄		l unto the Pennsyl		chorized to transact e System of Higher
(a)				% of the Contra design-profession		t, for performance of nd expenses;
(b)		iterial, equipm		% of the Contraublic-utility service		t, for the payment for he prosecution of
(c)		Contract;	, equal to	% of the Contra	act amount	t, for maintenance

lawful money of the United States of America, to be paid to PASSHE and its successors or assigns. The Principal and Surety hereby bind themselves and their heirs, executors, officers, agents, directors, administrators, board members, and successors, jointly and severally, to the payment of the foregoing sums and to the performance of the Contract.

WHEREAS, the Principal has entered or will enter into a Contract with PASSHE as designated above, which contract is hereby referred to and made a part hereof as fully and to the same extent as if set forth at length herein.

WHEREAS, the execution and submission of this Bond is one of the conditions for the award of the project and the execution of the Contract.

NOW, THEREFORE, the joint and several conditions of this obligation are as follows.

- 1. The joint and several obligations of the Principal and Surety set forth in this Bond are void if the Principal does all of the following; otherwise, the obligations remain in full force and effect:
  - (a) The Principal faithfully performs under the Contract, including the plans and specifications referred to and made part of the Contract, and including all alterations as may be made to the plans and specifications as provided by the Contract.
  - (b) The Principal indemnifies and saves harmless PASSHE and all of its officers, agents, directors, board members, and employees from any expense incurred through the failure of the Principal to complete the work as specified and for any damages arising from the performance of the Contract by the Principal or its subcontractors, agents, or servants, including but not limited to patent, trademark, and copyright infringements.
  - (c) The Principal promptly pays or causes to be paid all sums of money that may be due and owing by the Principal or any of its subcontractors to any person, partnership, association, limited-liability company, or corporation for: (1) any and all material furnished and labor supplied or performed in the prosecution of the work, whether or not that material or labor entered into and became part of the work; (2) the rental of any and all equipment used in, or in connection with, the prosecution of the work; (3) any and all services provided by a design professional related to the project; (4) any and all services rendered by public utilities in, or in connection with, the prosecution of the work.
  - (d) The Principal remedies without cost to PASSHE any breach of warranty or defects that may develop during a period of one year from the date of final completion and acceptance of all the work performed under the Contract; provided, in the sole discretion of PASSHE, or its successor having jurisdiction over the premises, such defects are caused by defective or inferior materials or workmanship. The maintenance duties and responsibilities incurred by the Principal pursuant to this paragraph do not qualify or limit any right of PASSHE arising pursuant to the performance requirements of this Bond or absolve the Principal of any duty, responsibility, or obligations vested in PASSHE.

- 2. Any alterations that may be made in the terms of the Contract or in the work to be done, or materials to be furnished, or labor to be supplied or performed, or equipment to be rented, or public utility services to be rendered, or the giving by PASSHE of any extension of time for the performance of the Contract, or the reduction of the retained percentage as permitted by the Contract, or any other forbearance on the part of either PASSHE or the Principal to the other, will not in any way release the Principal and the Surety or their heirs, executors, officers, agents, directors, administrators, board members, and successors, or assigns from their liability under this Bond. The Surety hereby waives notice of any such alterations, extensions, or forbearances.
- 3. Every person, partnership, association, limited-liability company, or corporation who, in or in connection with the prosecution of the work, whether as subcontractor or as a person otherwise entitled to the benefits of this Bond: (i) has furnished material or supplied or performed labor; (ii) rented equipment used in the prosecution of the work; (iii) any public utility who has rendered services; or (iv) has provided any design services; and who has not been paid in full, has a direct right of action against the Principal and Surety on this Bond for all sums as may be due, plus reasonable attorneys' fees; provided, however, that PASSHE shall not be liable to any third party for the payment of any fees, costs, or expenses of such suit under any theory of law or equity.
- 4. Recovery by any person, partnership, association, limited-liability company, or corporation hereunder is subject to the bonding provisions of the Commonwealth Procurement Code, Title 62, Chapter 9, § 903 of the Pennsylvania Consolidated Statutes, as amended, which is incorporated herein by reference, except that:
  - (a) Where the Commonwealth Procurement Code refers to the "purchasing agency" or "Commonwealth agency," it shall be deemed to refer to PASSHE.; and
  - (b) Where either the Commonwealth Procurement Code or this Bond uses the term "labor," the term "labor" includes "Design Professional Services," as defined in 62 Pa.C.S. § 901, provided by design professionals, regardless of whether the design professional who provided such Design Professional Services also superintended or supervised any erection, construction, alteration, or repair in the prosecution of the work.
- 5. In the event PASSHE declares the Principal in default of the Contract and terminates the Contract, the Surety shall promptly, and at the Surety's expense, take one of the following actions within 30 days of written notice from PASSHE of the termination of the Contract:
  - (a) Consult with PASSHE and determine if circumstances exist that PASSHE would permit an arrangement where the Surety could use the Principal to perform and complete the project. PASSHE may reject this option either verbally or in writing for any reason, or by identifying no reason at all. Should PASSHE assent to this option, then such assent must be in writing. Should PASSHE reject this option, then the Surety must select a different option in this paragraph within 30 days unless the Surety and PASSHE agree in writing to a different time period; or

- (b) Perform and complete the Contract itself, through its agents or through independent contractors, provided that such agents or independent contractors must be acceptable to PASSHE and approved by PASSHE in writing; or
- (c) Obtain bids or negotiate competitive proposals from qualified contractors who are acceptable to PASSHE and approved by PASSHE in writing for a new contract for the prosecution of the work and completion of the Contract, arrange for that new contract to be prepared for execution by PASSHE and the contractor selected with PASSHE's written concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to PASSHE the amount of damages PASSHE incurs resulting from the Principal's default in excess of the balance of the Contract Price, including the cost for correction of defective work and completion of the Contract, additional legal fees, design-professional fees, and delay costs resulting from the Principal's default, and liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by the delayed performance or non-performance of the Principal; or
- (d) Offer a written monetary settlement to PASSHE as an alternative to completing the Contract. PASSHE has sole discretion to refuse all monetary settlements offers without stating any reason. If PASSHE rejects the monetary settlement offer, then the Surety must undertake one of the other options in this paragraph within 30 days unless the Surety and PASSHE agree in writing to a different time period.
- 6. If PASSHE declares the Principal in default of the Contract and terminates the Contract, and the Surety does not proceed as provided in Section 5 within 30 days of the termination of the Contract, the Surety will be in default on this Bond, and PASSHE will be entitled to enforce any remedy available to it.
- 7. If the Surety elects to proceed under Section 5(b) and complete the project through its agents or through independent contractors, the Surety will provide in writing to PASSHE a list of all agents or independent contractors that the Surety proposes to use to complete the project. The Surety may not proceed to complete the project until PASSHE has given its approval, in writing, of the use of the proposed agents or independent contractors. If PASSHE provides written notice that any of the proposed agents or independent contractors are not acceptable, then the Surety must either procure the services of alternate agents or independent contractors that are acceptable to PASSHE, or select one of the other options in Paragraph 5 above.
- 8. Nothing in this Bond limits any right or ability of PASSHE to declare the Principal in default of the Contract or to terminate the Contract according its terms.
- 9. In the event of noncompliance with this Bond, the Surety is liable to PASSHE for the court costs and reasonable attorneys' fees spent in the collection of this Bond over and above the penal sum of this obligation, including but not limited to reasonable attorneys' fees and costs incurred.

- 10. All rights and obligations hereunder, including matters of construction, validity and performance, are governed by the law of the Commonwealth of Pennsylvania without regard to conflict-of-law principles. Venue for disputes regarding this Bond lies solely with the Pennsylvania Board of Claims or the Pennsylvania Commonwealth Court.
- 11. Notice to the Surety or Principal may be mailed or delivered to the address shown on the first page of this Bond.

Executed this	day of _	, 20	
If the Bidder is an Individ (one signature and one witness	=	, or Partnership:	
(Bidder Signature)		(Witness Signature)	
(Print Name)		(Print Name)	
If the Bidder is a Corpora (two signatures required)	ation, LP, LLP, or LL		
(Signature)		(Signature)	
(Print Name)		(Print Name)	
(Title)		(Title)	
Surety:			
(Signature)			
(Print Name)			
(Title)			

The names of the Principal and the Surety on the front page must include a street address.

The Surety must attach to the Bond a Power-of-Attorney, which must be dated to match the date of the Bond, and showing that at the person signing the Bond for the Surety has current authority to do so.

# STATE SYSTEM OF HIGHER EDUCATION COMMONWEALTH OF PENNSYLVANIA

# GENERAL CONDITIONS FOR THE CONSTRUCTION CONTRACT

# **TABLE OF CONTENTS**

ARTICLE	TITLE	<u>PAGE</u>
ARTICLE 1	DEFINITIONS	2
ARTICLE 2	GENERAL PROVISIONS	3
ARTICLE 3	THE SYSTEM	3
ARTICLE 4	THE CONTRACTOR	5
ARTICLE 5	SUBCONTRACTORS	9
ARTICLE 6	CHANGES IN THE WORK	10
ARTICLE 7	TIME	11
ARTICLE 8	SUSPENSION OF THE WORK	12
ARTICLE 9	PAYMENTS	14
ARTICLE 10	COMPLETION AND ACCEPTANCE OF THE WORK	16
ARTICLE 11	PROTECTION OF PERSONS AND PROPERTY	18
ARTICLE 12	TERMINATION OF THE CONTRACT	19
ARTICLE 13	DISPUTES	20
ARTICLE 14	MISCELLANEOUS PROVISIONS AND LEGAL MATTERS	23

# **ARTICLE 1 - DEFINITIONS**

- **1.1** As used in these General Conditions, and in the Contract Documents, the following terms are defined herein, unless the context clearly dictates otherwise.
  - a. Contract means the Contract for construction, of which these General Conditions are made a part. The documents comprising the complete Contract Documents are defined in the Standard Form of Contract.
  - b. Contract Sum, or Contract Price, is the dollar amount stated in the Standard Form of Contract, including any changes authorized by fully-executed Change Orders, and is the total amount payable by the System to the Contractor for performance of the Work under the Contract.
  - c. Contract Time is the time allowed for substantial completion of the Work, including any changes authorized by fully-executed Change Orders.
  - d. Amendment is a written order to the Contractor, signed by the System and by all necessary Commonwealth officials as provided by law, and issued after the execution of the Contract, authorizing a change in the terms and conditions of the Standard Form of Contract and/or the General Conditions, and/or any other Contract Documents providing terms and conditions. The Contract terms and conditions may be changed only by Amendment.
  - e. Change Order is a written order to the Contractor, signed by the System, and issued after the execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum and/or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order.
  - f. Contractor shall be the entity with whom the System has entered into this Contract to construct the Project in accordance with the Contract Documents.
  - g. Separate Prime Contractors are the entities with whom the System enters into contracts to construct the Project in accordance with the Contract Documents, in accordance with Act 104/Public Law 155 of 1913. "Separate Prime Contractors" is typically differentiated from "Contractor" to indicate contractors other than the specific Contractor with whom the System has entered into the Contract at hand.
  - h. Subcontractor is a person or entity who has contracted to furnish labor or materials, or has contracted to furnish labor, for a contractor or another subcontractor in connection with the Project.
  - i. Supplier is a person or entity who is providing materials or equipment, or construction equipment or machinery, but not labor, for a contractor or a subcontractor in connection with the Project.
  - j. System means the State System of Higher Education, Commonwealth of Pennsylvania; the Office of the Chancellor of the State System of Higher Education; University or Universities of the State System of Higher Education; or any authorized representative of any of them, entering into the Contract.
  - k. Substantial Completion is when the Work is sufficiently completed in accordance with the Contract Documents, changed as authorized by fully-executed Change Orders, and certified by the System, so that the Project can be used, occupied, and/or operated for its intended use. In no event shall the project be certified as Substantially Complete until at least ninety percent (90%) of the Work on the Project is complete.
  - I. Project is the total effort of construction, renovation, improvement, addition to, and/or repair of a facility. The total effort is comprised of one or more construction contracts, one of which is the Contract, plus other necessary contracts, agreements, and purchases for design, management, and equipment, and possibly for furniture and furnishings.

m. Work means all labor, materials, and equipment, along with the necessary supervision, required and incorporated to complete the construction, renovation, improvement, addition to, and/or repair of a facility specified in, and according to, the Contract Documents.

#### **ARTICLE 2 - GENERAL PROVISIONS**

# 2.1 CONTRACT DOCUMENTS

- 2.1.1 The Contract Documents are defined in the Standard Form of Contract.
- 2.1.2 The Contract can be changed by either: (1) an Amendment, or (2) a Change Order. The Contract may be changed only after the Contract has been properly executed by all necessary Commonwealth officials as provided by law. Changes within the scope of the Contract may be ordered by the System. Changes not within the general scope of the Contract must be agreed upon by both parties.
- 2.1.3 The Contract Documents are complementary, and what is required by any one of the Contract Documents shall be binding as if required by all. Work not covered under any heading, section, branch, class, or trade of the specifications need not be supplied unless it is required elsewhere in the Contract Documents or is reasonably inferable therefrom as being necessary to produce the intended results. Work shown on the drawings is required even if not covered under a specification section. If there is a conflict between the drawings and the specifications, the specifications shall prevail. Words that have well-known technical or trade meaning are used herein in accordance with such recognized meanings. Where the Work is shown in complete detail on only half or a portion of a drawing or there is an indication of continuation, the remainder being shown in outline, the Work drawn out in detail shall be understood to apply to other like portions of the Project.
- 2.1.4 The intent of the Contract Documents is to describe a functionally complete Project composed of functionally completed systems. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result of a completed system shall be furnished and performed whether or not specifically called for.
- 2.1.5 No additions to the Contract Sum will be approved for any labor, equipment, and/or materials to perform Work hereunder unless it can be clearly shown to be beyond the scope and intent of the drawings and specifications and to be absolutely essential to the proper execution of the Work.
- 2.1.6 All drawings, specifications, and copies thereof furnished by the System are and shall remain the property of the System. They are not to be used on any other project, without permission of the System, and, with the exception of one Contract set for each party to the Contract, are to be returned to the System upon request at the completion of the Work.

# **ARTICLE 3 - THE SYSTEM**

# 3.1 RIGHT TO STOP THE WORK

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents, or repeatedly fails to carry out Work in accordance with the Contract Documents, the System may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the System to stop the Work shall not give rise to a duty on the part of the System to exercise this right for the benefit of the Contractor or any other person or entity.

# 3.2 RIGHT TO CARRY OUT THE WORK

If the Contractor fails to satisfactorily carry out the Work in accordance with the Contract Documents or fails to perform any provision of the Contract, the System may, after three (3) working days written notice to the Contractor, and without prejudice to any other remedy the System may have, make good such failures. In such case, an appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such failures, including the cost for the additional services by the Professional or any of the other representatives of the System made necessary by such failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor and/or the Contractor's Surety shall pay the difference to the System.

#### 3.3 RIGHT TO AWARD CONTRACTS

The System reserves the right to award other contracts in connection with other portions of the Project under similar conditions of this Contract.

#### 3.4 REPRESENTATIVES

- 3.4.1 Representatives designated by the System will have the authority to enforce the Contract, to include inspecting the Work and rejecting all Work not in accordance with the Contract Documents. The System's Representatives may be System staff, the Professional, a Construction Manager, and/or other individuals or parties retained for such purpose.
- 3.4.2 Only those representatives so designated have authority to change, modify, or alter the Work or incur or cause to be incurred additional obligations beyond the Contract provisions.
- 3.4.3 The System may retain and designate other representatives, to include but not limited to Inspection and Testing firms, Commissioning Agents, and special consultants, to act as representatives for the System in the administration of specific aspects of the Contract. They may perform functions as determined by their agreements with the System.
- 3.4.4 In the event the System retains and designates more than one representative, and that directions, instructions, or interpretations given by those representatives are in conflict, the Contractor shall, within three (3) days but before any Work addressed in the conflicting directions, instructions, or interpretations is performed, bring the conflict to the attention of those representatives for resolution. In the event those representatives do not resolve the conflict, the Contractor shall bring the conflict to the attention of the System for resolution.

#### 3.5 THE PROFESSIONAL

- 3.5.1 If retained and so designated by the System, a Professional architect or engineer may act as representative for the System in the administration of the Contract and may perform any or all of the functions herein, as determined by the Professional's agreement with the System.
- 3.5.2 The Professional has the authority to visit the Project site to review progress in accordance with the Contract drawings and specifications, attend job conferences, make progress reports to the System, review and accept/reject the Contractor's Schedule of Values, approve the Contractor's applications for payment, interpret technical aspects of the Contract Documents, reject Work which does not conform to the Contract Documents, review and approve submittals, review and provide an evaluation of the Contractor's Quality Control program, prepare drawings and specifications for change orders, review and accept the Contractor's proposals for change orders, prepare punchlists, participate in punchlist and completion inspections, and review and approve operating and maintenance instructions, warranties, and related documents required by the Contract.

3.5.3 The Professional may have additional authorities and perform additional functions as determined by the System necessary to protect the System's interest.

#### 3.6 THE CONSTRUCTION MANAGER

- 3.6.1 If retained and so designated by the System, a Construction Manager may act as a representative for the System in the administration of the Contract and may perform any or all of the functions stated herein, as determined by the Construction Manager's agreement with the System.
- 3.6.2 The Construction Manager may perform any of the same actions the Professional has the authority to perform, either independent of or in conjunction with the Professional.
- 3.6.3 If given the responsibility by the System, the Construction Manager may perform any of the functions of System staff, except those functions expressed reserved for the Contracting Officer.
- 3.6.4 If given the responsibility by the System, the Construction Manager may assist in coordination of the activities of the various Separate Prime Contractors, as well as any other contractors, all of whom shall cooperate with him/her. Such coordination may include participation in the development, review, revision, and/or maintenance and updating of the Project construction schedule. Unless expressly provided for in Specification Section 013200, Construction Progress Documentation, the Construction Manager will not have control over or be responsible for the Project construction schedule itself, nor for the execution of the Work in accordance with the approved Project construction schedule, nor over construction means and methods.

#### **ARTICLE 4 - THE CONTRACTOR**

#### 4.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS

- 4.1.1 The Contractor shall perform the Work according to good quality industry standards, practices, and procedures, and in accordance with the Contract Documents and approved submittals.
- 4.1.2 The Contractor shall accept all conditions as found upon examination of the site, and take field measurements and verify field conditions and compare carefully such measurements and conditions with the Contract Documents before commencing activities. If the Contractor, in the course of construction, finds any conflict, error, or discrepancy on or among the Contract Documents, such conflict, error, or discrepancy shall be immediately referred to the System in writing.
- 4.1.3 On all Work of a remodeling nature or installation within existing facilities, the actual situation at the site controls any information given which may affect the quantity, size, and quality of materials required for a satisfactorily completed Contract, whether or not such information is indicated on the drawings or within the specifications.
- 4.1.4 If subsurface exploration, drilling, and/or testing was performed at the Project site, and if information resulting from that exploration, drilling, and/or testing was available to the Contractor by its inclusion in the Technical Plans and Specifications, then the following applies. Notwithstanding anything to the contrary contained in the Contract Documents, and notwithstanding anything to the contrary contained in the subsurface exploration, drilling, and/or testing reports themselves, such subsurface exploration, drilling, and/or testing reports provided are for informational purposes only, and nothing contained in them shall be deemed to be a representation or warranty with respect to the condition of the Project site and/or any Work required to be performed in connection with the excavation thereof.

#### 4.2 SUPERINTENDENCE AND MANAGEMENT

- 4.2.1 Unless Specification Section 011000, Summary, of this Contract contains other requirements for superintendence and/or management, the Contractor shall comply with the provisions below.
- 4.2.2 Superintendence. At all times during performance of the Work at the Project site, and until the Work is completed and accepted, the Contractor shall have on site a duly authorized and competent superintendent who shall directly supervise the Work. Direct supervision shall be required any time that the Contractor or any of its subcontractors are carrying out Work on the site. Communications given by the System at the Project site to the superintendent shall be as binding as if given to the Contractor. If the Contractor has more than one Separate Prime Contract, the Contractor shall provide a separate superintendent for each Separate Prime Contract. The superintendent shall be acceptable to the System. The System may require the submission of a resume or statement of qualifications for the proposed superintendent. The Contractor shall not change the assigned superintendent without approval of the System. Such approval shall not be unreasonably withheld.
- 4.2.3 Management. For the duration of the Contract, and until all Contract requirements are completed and final payment is made, the Contractor shall have a duly authorized and qualified project manager for the Contract. The project manager shall be the primary point of contact between the Contractor and the System, and between the Contractor and the design Professional. The project manager shall have the full authority to make decisions and approve Contract changes for the Contractor. If the Contractor has more than one Separate Prime Contract, the Contractor shall provide a separate project manager for each Separate Prime Contract. The project manager shall be acceptable to the System. The System may require the submission of a resume or statement of qualifications for the proposed project manager. The Contractor shall not change the assigned project manager without the approval of the System. Such approval shall not be unreasonably withheld.

# 4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 4.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill and attention to complete the Work in an acceptable manner and in accordance with the Project Schedule (see Article 4.7 Project Schedule). The Contractor shall be solely responsible for the Work performed and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work, unless the Contract Documents give other instructions.
- 4.3.2 The Contractor shall be responsible for the acts and omissions of all of its employees, all subcontractors and their agents and employees, and all other persons performing portions of the Work under an agreement with the Contractor.

#### 4.4 LABOR AND MATERIALS

- 4.4.1 The Contractor shall enforce strict discipline and good order and conduct among its employees and other persons carrying out the Work. Every employee shall be fit and skilled in the performance of tasks assigned to them. The Contractor shall comply with reasonable directives given by the System, or by its representatives, concerning interaction with System employees and students, and with the general public.
- 4.4.2 This Contract may be subject to the provisions, duties, obligations, remedies, and penalties of the Pennsylvania Prevailing Wage Act (43 P.S. § 165-1, et seq.), as amended, which is incorporated herein by reference as if fully set forth herein.
- 4.4.3 The System anticipates the Contractor will provide products (i.e., products, materials, and equipment as defined in Specification Section 016100, Common Product Requirements) to be incorporated into the Work. Products shall meet or exceed the quality specified in the Contract

Documents, and shall be new, undamaged, and unused at the time of installation, unless otherwise indicated in the Contract Documents or authorized by the System as a substitution after the Effective Date on this Contract. The Contractor shall produce, upon request, evidence supporting the source of materials used in the Work. The burden of proof of quality for all products provided rests with the Contractor. The costs incurred for substantiating quality shall be borne by the Contractor. If the System accepts substituted products of a lesser quality than specified, the System shall be entitled to a credit equal to the difference in cost of the products specified and the products provided, to include any difference in the cost of delivery, storage, handling, and installation. For any substituted products, the Contractor shall fully warrant and guarantee for the benefit of the System the effectiveness, fitness for the purpose intended, quality, and merchantability of the substituted product. Specification Section 016200, Product Options, provides requirements for requests for substitutions.

#### 4.5 TAXES

Contractor shall pay all sales, consumer, use, and other similar taxes as required by law. Since the System is an instrumentality of the Commonwealth of Pennsylvania, the sale at retail to or use by a construction contractor of certain building machinery and equipment and services thereto that are transferred to the System may possibly be excluded from some or all of such taxes. Forms and directions on the manner of obtaining exclusions from sales taxes may be obtained from the Pennsylvania Department of Revenue.

#### 4.6 UNIFORM CONSTRUCTION CODE; PERMITS, FEES, AND NOTICES

- 4.6.1 Under the Pennsylvania Uniform Construction Code (UCC), all System facilities fall under the jurisdiction of only the Pennsylvania Department of Labor and Industry (L&I) for plan review and inspection. Local authorities have no jurisdiction for building permits on System facilities. The System through its Professional is responsible for obtaining the Building Permit. A copy of the Building Permit, which includes a list of the required inspections, is available from the System or its Professional.
- The Contractor shall become familiar, and is responsible for complying, with all aspects of the UCC. For purposes of UCC inspections, the Contractor shall be deemed the "owner" as described in the UCC. Each Separate Prime Contractor shall include in the Project Schedule the UCC inspections applicable to their Work. Each Contractor shall be responsible to contact L&I to schedule the required inspections in accordance with the inspection procedures outlined in the Building Permit. Each Contractor shall notify the System of all scheduled inspections and shall inform the System in writing of the results of all inspections.
- 4.6.3 The Contractor shall complete in a timely manner all Contract requirements necessary for the Project to receive a Certificate of Occupancy.
- 4.6.4 Unless otherwise called for by the Contract, the System will obtain any required zoning or land use permits from the local municipality having jurisdiction.
- 4.6.5 Unless otherwise called for by the Contract, the System will obtain any required storm water or other environmental permits from the governmental agency having jurisdiction. The Contractor shall comply with any and all requirements of those permits. The Contractor also may be required to be a Transferee/Co-Permittee on the NPDES permit.
- 4.6.6 The Contractor shall obtain and pay for all other permits, licenses, and certificates required by Law and/or any public authority for the proper execution and completion of its Work. The Contractor shall furnish proof of payment for all such permits, licenses, and certificates, or proof that no permits, licenses, or certificates are required.
- 4.6.7 The Contractor shall give all notices and comply with all applicable Laws, ordinances, regulations, rules, and orders of any public authority bearing on the performance of the Work. If the Contractor observes that any of the Contract Documents is at variance therewith in any

respect, it shall promptly notify the System in writing. If the Contractor performs any Work knowing it to be contrary to such applicable laws, ordinances, regulations, rules, or orders, and without such written notice to the System, the Contractor assumes full responsibility therefor and shall bear all costs attributable thereto.

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the System harmless from loss on account thereof. The System shall be responsible for all such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is specified. However, if the Contractor has reason to believe that the design, process, or product specified is an infringement on a patent, it shall be responsible for such loss unless it promptly gives such information to the System.

#### 4.7 PROJECT SCHEDULE

- 4.7.1 The Contractor shall comply with the Project Schedule requirements specified in Specification Section 013200, Construction Progress Documentation. If a Section 013200 is not provided, the Contractor shall comply with the provisions below.
- 4.7.2 Within seven (7) days following receipt of Notice to Proceed, the Lead Prime Contractor (see Specification Section 011000, Summary) shall furnish to the System and to any and all other Separate Prime Contractors a practicable schedule of the proposed prosecution of the Work, and the planned dates on which salient features of the Work will start and complete. The Project Schedule shall be coordinated with and accepted and signed by any and all other Separate Prime Contractors, and submitted to the System for review and approval not later than fourteen (14) days after Notice to Proceed.
- 4.7.3 The Contractor shall complete portions of the Work in such order of time as may be stated in the Contract Documents or as required in the approved Project Schedule. If the Contractor fails to process the Work according to the approved Project Schedule, the System may require the Contractor to take necessary steps to recover and maintain the Project Schedule, at no additional cost to the System. Necessary steps may include, but are not limited to, additional resources, additional shifts, or overtime operations. If the Contractor refuses or fails to proceed as directed by the System, the System has the right to carry out the Work, and may find the Contractor in breach of its Contract and/or declare the Contractor in default.

#### 4.8 SUBMITTALS

- 4.8.1 The Contractor shall prepare and process, in accordance with Specification Section 013300, Submittal Procedures, submittals, consisting of the necessary shop drawings, coordination drawings, product data, samples, and other information required to identify the proposed equipment and materials, to support the proposed installation methods, and to establish standards by which the Work will be judged. The preparation and processing of submittals shall not delay the Project or require a time extension to the Contract Time, unless agreed to by the System.
- 4.8.2 The System's review and approval of a submittal is for conformance with the information given in the Contract Documents and with the design concept of the Project. Approval does not relieve the Contractor of the responsibility for compliance with Contract requirements or with statutory or regulatory requirements. Moreover, the Contractor is responsible for dimensions, quantities, details and connections, fabrication, construction methods, and coordination of trades required for satisfactory construction of all Work.
- 4.8.3 No portion of the Work requiring a submittal shall be commenced until the submittal has been approved by the System. Any Work commenced by the Contractor prior to approval of the submittal is performed by the Contractor at its own risk.

#### 4.9 **JOB CONDITIONS**

- 4.9.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment, unless otherwise permitted by the System. The Contractor shall at all times keep the work site free from accumulation of waste materials or rubbish created by its operations.
- 4.9.2 The site of the Work is defined by the Limit of Contract line shown on the drawings. The Contractor may only extend its Work beyond this line as may be necessary to satisfy requirements of all permits and to make utility and service connections. Before starting any Work beyond the Limit of Contract, the Contractor shall submit to the System a description of the proposed Work for their review and approval.
- 4.9.3 The Contractor shall cooperate in the arrangements of the Work, as necessary, to least affect the administration or operation of any present facility. Existing utility services roads and access ways shall not be interrupted without prior approval by the System. The Contractor shall comply with the System's prescribed times for acceptable outage periods.
- 4.9.4 The Contractor shall at all times afford other contractors reasonable access to the site and material storage areas, and shall perform its Work so as not to interfere with the work of other contractors.
- 4.9.5 The Contractor shall be responsible for providing temporary heat, light, and water as necessary to execute and protect the Work, and shall maintain adequate ventilation of the work site to ensure proper air quality for human breathing and safe equipment operations. Specific requirements may be provided elsewhere in the Contract Documents, including, but not limited to, Specification Section 015000, Temporary Facilities and Controls.
- 4.9.6 The Contractor shall protect the Work and stored materials. Specific requirements may be provided elsewhere throughout the Contract Documents.

#### 4.10 CONTRACTOR EVALUATIONS

The Contractor, by entering the Contract, consents to the evaluation of its performance by the System, or its representatives, and the Contractor understands that any such evaluation may be used in future procurements to determine the Contractor's responsibility. The System, or its representatives, shall provide the Contractor with notice of any unsatisfactory evaluations and the reasons therefore. In such cases, the Contractor shall be entitled to submit a reply.

# **ARTICLE 5 - SUBCONTRACTORS**

#### 5.1 SUBCONTRACTS

- 5.1.1 Subcontractors employed by the Contractor are solely responsible to the Contractor, and shall have no contractual relationship with the System.
- 5.1.2 All Work performed for the Contractor by a subcontractor shall be pursuant to an appropriate agreement between the Contractor and the subcontractor. All agreements between Contractors and subcontractors shall contain provisions requiring all of the following rights and responsibilities:
  - a. Preserving and protecting the rights of the System under the Contract with respect to the Work to be performed under the subcontract, so that the subcontracting thereof will not prejudice such rights.
  - b. Requiring that the Work be performed in accordance with the terms, conditions, and requirements of the Contract Documents.

- c. Requiring that all claims for additional costs, extensions of time, or otherwise, with respect to subcontracted portions of the Work, be submitted to the Contractor in the manner provided in the Contract Documents for like claims by the Contractor upon the System.
- d. Requiring that each subcontractor and/or supplier fully warrant and guarantee for the benefit of the System as purchaser the effectiveness, quality, and merchantability of any item provided and/or installed by such subcontractor.
- e. Requiring that the subcontractor is without privity of Contract to the System and that it agrees by signing the subcontract that it neither acquires nor intends to acquire any rights against the System on a third party beneficiary theory or any others.
- 5.1.3 The Contractor shall not sublet any part of this Contract without written approval of the System. Within thirty (30) days after contract award, or within seven (7) days after Notice to Proceed, whichever is sooner, the Contractor shall furnish to the System, for approval, a list of all subcontractors and suppliers it proposes to use under the Contract.
- 5.1.4 A Contractor may not, except with the consent of the System, have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this Project. Failure to disclose the names of such subcontractors and/or suppliers shall be sufficient grounds for termination of this Contract. Such failure may also be grounds for the initiation of civil or criminal proceedings.
- 5.1.5 The System has the right to direct the Contractor to replace any subcontractor to which the System objects for any of the following reasons:
  - a. The subcontractor has failed to work in accordance with the Contract provisions, rules, and regulations regarding Contractor performance, Contract Compliance, or good order and conduct of its employees.
  - b. The subcontractor has defaulted or failed to perform on previous System projects.
  - c. The subcontractor has been suspended or debarred from doing business with the Commonwealth.

#### ARTICLE 6 - CHANGES IN THE WORK

#### 6.1 CHANGE ORDERS

- 6.1.1 The System, without invalidating the Contract, and without notice to the Sureties, may, by written order, order changes in the Work within the general scope of the Contract, consisting of additions, deletions, or other revisions. All such changes shall be implemented by a Change Order.
- Change Orders shall adjust the Contract Sum and Contract Time accordingly, as they relate to the cost of the Work and the cost of any impacts to the Work, and to the impact on timely completion of the Work. Costs and impacts shall include any and all costs associated with acceleration, stacking, and re-sequencing of the Work required to maintain the Project Schedule. If it is not possible to complete the Work in accordance with the Project Schedule and/or the Contract Time by the acceleration, stacking, or re-sequencing, the Contractor may request an extension of time. Adequate information and proper submission must be provided to validate such a request.
- 6.1.3 The Contractor agrees that payment under any method noted within this Contract shall be the exclusive compensation for such addition, deletion, or other revision to the original Contract, and that by signing a Change Order, the Contractor agrees to release and waive any and all claims related to that Change Order or the Work contained therein.
- 6.1.4 When the System and the Contractor are not in total agreement on the terms of a Change Order, or when the amount or extent of the Work related to the Change Order is not known,

the System may issue a unilateral change order, or a Construction Change Directive, directing the Contractor to proceed with a change in the Work. In such cases, the Contractor must proceed with the Work but shall have the right to request an adjustment to the Contract Sum and Contract Time. In such cases, requests for adjustment to the Contract Sum and/or Contract Time must be accompanied by supporting documentation of incurred costs/time.

6.1.5 Minor changes in the Work not affecting the Contract Sum or Contract Time, consistent with the intent of the Contract Documents, may be directed by the System without additional compensation or time extension.

#### 6.2 REQUESTS FOR ADDITIONAL COST OR TIME

- 6.2.1 If the Contractor desires an increase in the Contract Sum, written notice shall be given to the System before proceeding to execute any Work which is the subject of the desired increase. Such request shall be in accordance with Specification Section 012600, Contract Modification Procedures, or other similar formal System procedures.
- 6.2.2 If the Contractor desires an increase in Contract Time, written notice shall be given to the System, including an estimate of the probable impact on the timely completion of the Work and of any cost associated with that impact.

# 6.3 CONCEALED OR UNKNOWN CONDITIONS

- 6.3.1 If conditions are encountered which are: (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in work of the character provided for in the Contract Documents, then the Contractor shall give written notice to the System promptly, and before conditions are disturbed, and in no event later than seven (7) days after first observance of the conditions.
- The System will promptly investigate such conditions. If conditions differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, the System will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the conditions at the site are not materially different from those indicated in the Contract Documents, no change in the terms of the Contract is justified. No adjustment shall be made to the Contract Sum and/or Contract Time, however, for concealed conditions encountered during cutting and patching of Work.

# ARTICLE 7 - TIME

## 7.1 CONTRACT TIME

- 7.1.1 Time is of the essence. The Contractor shall prosecute the Work diligently and substantially complete the Work in accordance with the Contract Time specified in the Standard Form of Contract.
- 7.1.2 No on-site Work may take place until Notice to Proceed is issued by the System.
- 7.1.3 If the System issues a Binding Letter of Intent to Contract prior to Notice to Proceed, the Contractor may rely on the letter to prepare to start Work to the extent authorized by the letter and incur costs in preparation for performance of the Contract.
- 7.1.4 The Contract Time anticipates inclement and/or adverse weather, and the Contractor shall plan accordingly. Inclement or adverse weather, including but not limited to cold or freezing weather, shall not be considered an excuse for non-performance of Work under this Contract. The

Contractor shall use such methods of protection as may be necessary to continue to work throughout the period of inclement or adverse weather.

## 7.2 ADJUSTMENTS TO THE CONTRACT TIME

- 7.2.1 A time extension for an ordered change in the Work will depend upon the extent, if any, by which the change causes delay in completion of the various elements of construction. Normally a time extension will be granted if the changed Work impacts a Work item on the critical path of the Project Schedule and the scheduled completion date is impacted. For an ordered change in the Work that can reasonably be done concurrent with other Contract Work, without significant addition of labor or equipment, no time extension will be granted.
- 7.2.2 A change order granting a time extension may provide that the Contract Time will be extended only for those specific elements related to the changed Work and that the remaining Contract Time for all other portions of the Work will not be changed.

#### 7.3 NO-FAULT TIME EXTENSIONS

- 7.3.1 If delays in completing the Work arise from unforeseen causes beyond the control and without the fault or negligence of either the Contractor or the System, the System may, in its sole discretion, grant a time extension for any such delays by extending the time for completion of the Work, which extension shall constitute the exclusive remedy between the parties. Examples of such causes include, but are not limited to, acts of God, acts of or protection against a public enemy, acts of the Commonwealth in its sovereign capacity, changes in any controlling law or policy of any governmental entity, acts of another contractor in its performance of an agreement with the System, strikes, embargoes, and unusually severe weather. Any such time extension must meet the criteria under Article 7.2.
- 7.3.2 If unusually severe weather is the basis for Contractor's request for additional time, such request shall be documented by data from a recognized weather authority substantiating that weather conditions were abnormal for the period and could not have been reasonably anticipated. The Contractor shall also substantiate that the unusually severe conditions had an adverse impact on the scheduled completion date.

# **ARTICLE 8 - SUSPENSION OF THE WORK**

#### 8.1 SUSPENSION OF THE WORK

- 8.1.1 The System may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of the System.
- 8.1.2 If the performance of all or any part of the Work is, for an unreasonable period of time, suspended, delayed, or interrupted:
  - a. by an act of the System in the administration of this Contract, or
  - b. by the System's failure to act within the time specified in this Contract, or within a reasonable time if not specified,

an adjustment shall be made for any increase in the cost of performance of this Contract (excluding profit) necessarily caused by such unreasonable suspension. The Contract shall be modified in writing accordingly. No adjustment shall be made under this clause for any suspension to the extent that performance would have been so suspended by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other provision of this Contract.

- 8.1.3 No claim under this clause shall be allowed unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension. The claim may not be asserted later than the date of final payment.
- 8.1.4 The provisions of this Article 8.1 do not apply under conditions enumerated in Article 8.2 or Article 8.3.

# 8.2 SUSPENSION OF THE WORK DUE TO UNFAVORABLE CONDITIONS

- 8.2.1 If, in the judgment of the System, the Contractor is taking undue risk of damage to any part of a structure or installation by proceeding with the Work during unfavorable weather or other conditions, then the System may suspend the Work temporarily, either wholly or in part for such periods as are necessary. In case of such suspension, the System may, in its sole discretion, grant a time extension for any such delays by extending the time for completion of the Work, which extension shall constitute the exclusive remedy between the parties. The failure of the System to suspend the Work does not relieve the Contractor of its responsibility to perform the Work in accordance with the Contract Documents.
- 8.2.2 The System may require a suspension of the Work if, in its opinion, unforeseen conditions warrant such stoppage. When the System directs resumption of the Work, the Contractor shall resume full operations within a period of seven (7) days after the date of written notice to do so. The System is not liable for any damages, lost overhead, or anticipated profits on account of the Work being suspended.
- 8.2.3 Any Work done by the Contractor during the period of suspension is its own responsibility. The Contractor shall receive no payment for the Work unless the Work is subsequently resumed and Work done during the suspension can be utilized in the resumed Work.
- 8.2.4 Suspensions of Work as outlined above shall not in themselves operate to extend the Contract date of completion. Requests for extensions of time shall be submitted in writing by the Contractor, setting forth its reasons for the extension.

# 8.3 SUSPENSION OF THE WORK FOR FAULT OF THE CONTRACTOR

Should the Contractor fail to comply with the orders of the System relative to any particular parts of the Work, the System may suspend Work on any or all parts of the Work until its orders respecting the particular parts are complied with. In case of such suspension, which shall be considered due to the fault of the Contractor, no extension of time shall be given and no allowance will be made for the expenses incurred by the Contractor during the suspension period.

# 8.4 SUSPENSION OF THE WORK FOR FAULT OF OTHER SEPARATE PRIME CONTRACTORS

If the performance of all or any part of the Work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of another Separate Prime Contractor, or by another Separate Prime Contractor's failure to act within the time specified in this Contract, or within a reasonable time if not specified, the System may, in its sole discretion, grant a time extension for any such delays by extending the time for completion of the Work, which extension shall constitute the exclusive remedy between the parties. Otherwise, Disputes with other Separate Prime Contractors is addressed in Article 13.5.

# **ARTICLE 9 - PAYMENTS**

#### 9.1 PAYMENTS

- 9.1.1 Performance by the Contractor in accordance with the requirements of the Contract Documents shall entitle the Contractor to payment by the System. Normally, payment for the Work will be made upon substantial completion and acceptance of the Work. However, when a contract exceeds \$25,000 and upon written request, partial payments may, at the discretion of the System, be made after completion of portions of the Work.
- 9.1.2 The System shall pay the Contractor according to the provisions of this Article for all items that appear on the application for payment and have been satisfactorily completed. Applications for payment will not be considered to be acceptable unless they meet all the requirements specified in Specification Section 012900, Payment Procedures, and as outlined elsewhere in the Contract Documents.
- 9.1.3 Before any application for payment can be submitted and/or approved, the Contractor shall submit to the System for its approval a detailed breakdown of the costs indicating a schedule of quantities and values for the items of Work included in the Contract, as required in Specification Section 012900, Payment Procedures.
- 9.1.4 The Contractor warrants and guarantees that title to all Work, materials, and equipment covered by an application for payment, whether incorporated in the Project or not, will pass to the System upon the receipt of such payment, free and clear of all terms, claims, security interests, or encumbrances. Such warrant and guarantee shall not relieve the Contractor from the sole responsibility for all material and Work upon which payments have been made, or the restoration of damaged Work, or waive the right of the System to require the fulfillment of the terms of the Contract.
- 9.1.5 The System may decline to approve any application for payment, or portion thereof, because of subsequently discovered evidence or subsequent inspections which may nullify the whole or part of any application for payment previously issued, to such extent as may be necessary to protect the System from loss because of:
  - (1) defective Work not remedied,
  - (2) failure of the Contractor to make payments properly to subcontractors or for labor, materials, and equipment,
  - (3) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
  - (4) reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay, or
  - (5) unsatisfactory execution of the Work by the Contractor.

#### 9.2 RETAINAGE

9.2.1 To ensure proper performance of the Contract, the System may retain from all partial payments an amount not to exceed ten percent (10%) of the amount due the Contractor until fifty percent (50%) of the Contract is completed. When the Contract is fifty percent (50%) completed, one half of the amount retained by the System shall be returned to the Contractor. However, the System or their representative must approve the reduction in retainage. The Contractor must be making satisfactory progress, and there must be no specific cause for greater withholding. The sum to be withheld from the Contractor after the Contract is fifty percent (50%) completed shall not exceed five percent (5%) of the value of the completed Work based on monthly progress payment requests. All money retained by the System may be withheld from the

Contractor until substantial completion.

- 9.2.2 In the event a dispute arises between the System and any Separate Prime Contractor, which dispute is based upon increased costs claimed by one Separate Prime Contractor occasioned by delays or other actions of another Separate Prime Contractor, additional retainage in the sum of one and one-half times the amount of any possible liability may be withheld until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless the Contractor causing the additional claim furnishes a bond satisfactory to the System to indemnify the System against the claim.
- 9.2.3 In absence of sufficient reason, within 20 days of receipt of payment of retainage, the Contractor shall pay all subcontractors with which it has contracted their earned share of the retainage payment the Contractor received.

#### 9.3 WITHHOLDING OF PAYMENTS FOR DEFICIENCY ITEMS

- 9.3.1 A deficiency item is Work performed but which the System, one of the System's representatives, the Contractor, or another authorized inspector will not certify as being completed according to the Contract Documents.
- 9.3.2 The System may withhold from any and all partial payments, in addition to retainage identified in Article 9.2, a reasonable amount for a deficiency item. If the System withholds money for a deficiency item, the System shall notify the Contractor of the deficiency item within the timeframe specified in the Contract or 15 calendar days of the date that the application for payment is received.
- 9.3.3 The Contractor may similarly withhold money from any subcontractor who is responsible for any deficiency item, and must similarly notify the subcontractor, and the System, of the reason within 15 calendar days after receipt of the notice of the deficiency item from the System.

#### 9.4 PROMPT PAYMENT

- 9.4.1 The System shall make payment, less any applicable retainage and withholdings, to the Contractor within 45 days of receipt of a proper application for payment. If payment is not made within 45 days, the System shall pay to the Contractor interest on the amount due in accordance with Chapter 39 of the Commonwealth Procurement Code.
- 9.4.2 For the purposes of this Article, a contract between the Contractor and a subcontractor is presumed to incorporate the terms of the Contract between the Contractor and the System. When a subcontractor has performed in accordance with the provisions of the Contract, a Contractor shall pay to the subcontractor, and each subcontractor shall in turn pay to its subcontractors, the full or proportioned amount received for each such subcontractor's work and material, 14 days after receipt of a progress payment. Neither the System nor any of its representatives shall have any obligation to pay or to see the payment of any monies to any subcontractor except as may be otherwise required by law.
- 9.4.3 The System shall make a substantial completion inspection within 30 days of receipt of a request by the Contractor for such inspection. If the Work is substantially complete, the System shall issue a certificate of substantial completion and, upon receipt of a proper application for payment, make payment in full within 45 days except as provided for in Article 9.2, less only one and one-half times the amount required to complete any then-remaining uncompleted minor items, which amount shall be certified by the System and, upon receipt by the System of any guarantee bonds which may be required, in accordance with the Contract, to ensure proper workmanship for a designated period of time. The certificate of substantial completion given by the System shall list in detail each uncompleted item and a reasonable cost of completion. Upon completion of the uncompleted items listed in the certificate of substantial completion, final payment of any amount withheld for the completion of the minor items shall be paid upon receipt of a proper application for payment.

# ARTICLE 10 - COMPLETION AND ACCEPTANCE OF THE WORK

# 10.1 ACCEPTANCE OF THE WORK

- 10.1.1 An application for progress payment, a progress payment, or any partial or entire use or occupancy of the Project by the System shall not constitute an acceptance of any Work not in accordance with the Contract Documents.
- 10.1.2 The System may occupy or use any completed or partially-completed portion of the Work at any stage when such portion is so designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer, and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the System and the Contractor have accepted in writing the responsibilities assigned to each of them for payments, security, maintenance, heat, insurance, etc. Immediately prior to such partial occupancy or use, the System and the Contractor shall jointly inspect the area in order to determine and record the condition of the Work, and agree to the period for correction of this Work and as to the commencement of warranties.

#### 10.2 NO ESTOPPEL OR WAIVER OF LEGAL RIGHTS

- 10.2.1 Neither the System nor its representatives shall be precluded or estopped by the measurements or approved applications for payment made or given by any of them or by any of their agents or employees, at any time, either before or after the completion and acceptance of the Work and payment thereof, from showing the true and correct amount and character of the Work performed and materials and equipment furnished by the Contractor. The System and/or its representatives may show at any time, that any such measurements or approved applications for payment are untrue or incorrectly made in any particular; or that the Work or materials, equipment or any parts thereof do not conform to the Contract Documents.
- The System shall have the right to reject the whole or any part of the aforesaid Work or materials and equipment should the said measurements or approved applications for payment be found or be known to be inconsistent with the terms of the Contract, or otherwise improperly given. The System shall not be precluded or estopped, notwithstanding any such measurements or approved applications for payment in accordance therewith, from demanding and recovering from the Contractor or its Surety, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract Documents, or on account of any over-payments made on any approved applications for payment.
- Neither the acceptance by the System or by any of its representatives, nor any certificate approved for payment of money, nor any payments for, nor acceptance of the whole or any part of the Work by the System, nor any extension of time, nor any position taken by the System or its employees, shall operate as a waiver of any portion of the Contract or any power herein reserved by the System or any right to damages. A waiver of any breach of the Contract will not be held to be a waiver of any other or subsequent breach.

## 10.3 CORRECTION OF DEFECTIVE OR NON-CONFORMING WORK

10.3.1 Work performed under the Contract is subject to inspection by the System. The Contractor shall promptly correct all Work rejected by the System as defective or as failing to conform to the Contract Documents, whether observed before or after substantial completion and whether or not fabricated, installed, or completed. All defective or non-conforming Work shall be promptly removed from the site. The Contractor shall bear all costs of correcting such rejected Work, including any additional costs incurred by the System or its representatives and there shall be no extension of the Contract Time for correcting such rejected Work.

- 10.3.2 The Contractor shall bear the cost of making good all Work of other Separate Prime Contractors destroyed or damaged by such removal or correction.
- 10.3.3 If the Contractor does not remove such defective or non-conforming Work within the time fixed by written notice from the System, the System may, in accordance with Article 3.2, The System's Right to Carry Out the Work, remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, the System may, upon ten (10) additional days written notice, sell such Work at auction or at private sale and, after deducting all the costs that should have been borne by the Contractor pursuant to the provisions of this Article, shall account for the net proceeds of the sale. If such proceeds of sale do not cover all costs that the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate change order shall be issued. If the payments then or thereafter due to Contractor are not sufficient to cover such amount, the Contractor and/or the Contractor's Surety shall pay the difference to the System.
- 10.3.4 The obligations of the Contractor under this Article are in addition to and not in limitation of any obligations imposed upon the Contractor by special guarantees required by the Contract Documents or otherwise prescribed by law. Correction of defective Work in no way reduces or eliminates the Contractor's responsibilities under the Warranty provisions of the Contract.

## 10.4 UNCOVERING OF WORK

- 10.4.1 If a portion of the Work is covered contrary to the request of the System, it must, if required by the System, be uncovered for its observation, and replaced at the Contractor's expense without change in Contract Time.
- 10.4.2 If a portion of the Work has been covered which the System has not specifically requested to observe prior to being covered, the System may request to see such Work, and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall be charged to the System. If the Work is not in accordance with the Contract Documents, the Work shall be removed and replaced by the Contractor, within the period specified by the System by written notice, at no additional cost to the System. The System may, upon failure by the Contractor to replace the nonconforming Work, have the Work removed and replaced at the Contractor's expense.

# 10.5 ACCEPTANCE OF NON-CONFORMING WORK

If the System elects to accept non-conforming Work, it may do so instead of requiring its correction or removal and replacement. If nonconforming Work is accepted, a change order shall be issued to reflect an appropriate reduction in the Contract Sum to reflect the actual cost reduction to the Contractor of the change in the Work, or, if the amount is determined after final payment, it shall be paid by the Contractor and/or its Surety. In any event, any costs of uncovering and recovering the Work shall be at the expense of the Contractor.

#### 10.6 WARRANTY OF CONSTRUCTION

10.6.1 In addition to any other warranties in this Contract, the Contractor shall warrant, except as provided in Article 10.6.6, that Work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, design furnished, or workmanship performed by the Contractor or any of its subcontractors or suppliers at any tier.

- 10.6.2 This warranty shall be for a period of one (1) year starting at the date of substantial completion of the Work. If the System takes possession of any part of the Work prior to substantial completion, this warranty shall be for a period of one (1) year starting at the date the System takes possession, unless the System and the Contractor agree to another one-year period, or different one-year periods for different portions of the Work.
- The Contractor shall remedy at the Contractor's expense any defect in the Work or failure to conform to Contract requirements. In addition, the Contractor shall remedy at the Contractor's expense any damage to System-owned or -controlled real or personal property, when that damage is the result of any defect or failure. In fulfilling the terms and conditions of this Article, the Contractor shall restore any Work damaged. And in doing so, the Contractor's warranty with respect to Work repaired or replaced will run for one (1) year from the date of repair or replacement.
- The System shall notify the Contractor, in writing, within a reasonable time afterward, of the discovery of any failure, defect, or damage. If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the System shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- 10.6.5 With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for Work performed and materials furnished under this Contract, the Contractor shall obtain all warranties that would be given in normal commercial practice, require all warranties to be executed in writing, and enforce all warranties for the benefit of the System, if directed by the System. In the event the Contractor's one-year warranty has expired, the System may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.
- Unless a defect is caused by the negligence of the Contractor or any of its subcontractors or suppliers at any tier, the Contractor shall not be liable for the repair of any defect in System-furnished material or design, nor for the repair of any damage that results from any defect in System-furnished material or design.
- 10.6.7 This warranty shall not limit the System's rights with respect to latent defects, gross mistakes, or fraud.

#### **ARTICLE 11 - PROTECTION OF PERSONS AND PROPERTY**

#### 11.1 SAFETY AND HEALTH

- 11.1.1 The Contractor shall be responsible for initiating, maintaining, and supervising all safety and health precautions and programs required under the Contract and relative to its portion of the Work. The Contractor shall take all reasonable precautions for the safety and health of, and shall provide all reasonable protection to prevent injury or illness to, all employees on the Work, and all other persons who may be affected thereby. The Contractor shall erect and maintain as required by existing conditions and progress of the Work, until the acceptance of the completion of its portion of the Project, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety and health regulations, and notifying owners and users of adjacent utilities.
- 11.1.2 The Contractor shall comply with Federal OSHA regulations and other applicable safety and health regulations. The most stringent standard shall prevail.
- 11.1.3 The Contractor shall designate a qualified member of its organization at the site who shall be responsible for the safety and health program.
- 11.1.4 The Contractor shall comply with Specification Section 013500, Special Procedures, if that Section is included as a part of this Contract.

#### 11.2 PROTECTION OF PROPERTY

The Contractor shall provide all reasonable protection to prevent the loss of or damage to property, including but not limited to:

- (1) any completed Work,
- (2) all the materials and equipment to be incorporated into the Work, whether in storage on or off the site, under the care, custody, or control of the Contractor or any of its subcontractors, and
- (3) other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, buildings, parts of buildings, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

#### 11.3 PROTECTIVE ACTION

In any emergency affecting the safety or health of persons or the damage to or loss of property, the Contractor shall act, at its discretion, to prevent threatened damage, injury, illness, or loss, and report immediately such incidences to the System. Any additional compensation or extension of time requested by the Contractor because of emergency work shall be determined as provided for elsewhere in these General Conditions.

# **ARTICLE 12 - TERMINATION OF THE CONTRACT**

#### 12.1 TERMINATION FOR CONVENIENCE

- 12.1.1 The System may, at any time and for any reason, terminate this Contract for the convenience of the System.
- Such termination shall be effective in the manner and at the time specified in such notice and shall be without prejudice to any claims that the System may have against the Contractor. Upon receipt of such notice from the System, the Contractor shall immediately discontinue all Work and the placing of all orders for materials, equipment, facilities, and supplies in connection with the performance of this Contract. The Contractor shall cancel promptly all existing orders and terminate Work under all subcontracts so far as such orders and Work are chargeable to this Contract. The Contractor shall take such measures for the protection of the property of the System as may be directed by the System.
- 12.1.3 Upon termination of this Contract, as provided by this Article, full and complete adjustment and payment of all amounts due the Contractor arising out of this Contract, as determined by an audit conducted by or for the System, as soon as practicable after such termination, shall be made as follows.
  - a. The System shall reimburse the Contractor for all costs incurred to date of termination, including reasonable overhead and expenses incurred in the performance of this Contract, less amounts previously paid.
  - b. The System shall also reimburse the Contractor for all costs to which the Contractor has been subjected or is legally liable for by reason of the termination of this Contract, including reasonable costs related to cancellation of orders, termination of subcontracts, etc.
  - c. The System shall also reimburse the Contractor for the reasonable cost of providing protection of the property of the System as directed by the notice of termination.
  - d. The Contractor shall not be reimbursed for any loss of anticipated profits associated with the unfinished portion of the Contract.

- e. The sum total of the payments made under Article 12.1.3 shall not exceed the total Contract Sum, less payments previously made.
- f. Title to all property accruing to the System by reason of the termination of this Contract shall immediately vest in the System, and the Contractor shall execute and deliver to the System all papers necessary to transfer title.
- g. The System or its representative shall be afforded full access to all books, correspondence, data, and papers of the Contractor relating to this Contract in order to determine the amount due.
- h. Disputes as to the sum payable to the Contractor shall be settled in accordance with Article 13.

#### 12.2 TERMINATION FOR DEFAULT OF THE CONTRACTOR

- 12.2.1 If the Contractor persistently or repeatedly refuses or fails to supply enough properly-skilled workmen or proper materials, or persistently disregards laws, ordinances, rules, regulations, or orders of the System or of any public authority having jurisdiction, or fails to proceed as directed by the System, or performs the Work unsuitably, or neglects or refuses to remove materials or replace rejected Work, or fails to make satisfactory progress toward timely completion of the Work, or discontinues the prosecution of the Work without approval of the System, or otherwise is guilty of a substantial violation of a provision of the Contract, then the System may, without prejudice to any of its other rights or remedies, give the Contractor and its Surety written notice that the Contractor has seven (7) days from the date of the System's notice to cure the default set forth in the notice.
- The discretion to declare the Contractor in default is solely the System's, and no party, whether bound by agreement to the System or attempting to raise a third party relationship, which this Contract specifically precludes, has standing to raise the failure of the System to exercise its discretion, if default is the basis of a claim against the System.
- 12.2.3 Should the Contractor fail to cure said default within the specified time, the System may terminate the Contract between the System and the Contractor and may take possession of the site and of all completed Work and any materials for which the System has already paid, and may finish the Work by whatever method it may deem expedient.
- 12.2.4 The Contractor is not entitled to receive any further payment until the Work is finished. In any case the Contractor shall be entitled to payment for Work satisfactorily completed by the date of termination, and for any materials already on site and for which the System has taken possession. However, if the unpaid balance of the Contract sum is less than the cost of finishing the Work, including compensation for the Professional's additional services, reasonable and necessary costs of reprocurement, and any other damages which the System has incurred in accordance with the Contract, the Contractor or the Surety or both shall be liable to the System for the difference. Disputes as to the sum payable or due shall be settled in accordance with procedures in Article 13.
- 12.2.5 In the event the System wrongfully terminates the Contract, as determined by procedures in Article 13, such termination shall be considered a Termination for Convenience.

# **ARTICLE 13 - DISPUTES**

# 13.1 DISPUTES BETWEEN THE CONTRACTOR AND THE SYSTEM

13.1.1 This Article applies to any dispute, disagreement, question, or other matter between the Contractor and the System arising under or by virtue of this Contract. Such matters shall be initiated as a written claim, meaning a written demand or assertion seeking, as a matter of right,

interpretation of the Contract terms, conditions, or requirements, or adjustment of the Contract Sum and/or Contract Time, or other relief with respect to the Contract.

- 13.1.2 Claims shall be processed as called for in this Article, until resolved or waived.
- 13.1.3 The Contractor shall diligently carry on the Work and maintain the progress schedule during the Disputes process, including Board of Claims proceedings, if any, unless otherwise agreed to in writing by the Contractor and the System.
- 13.1.4 At any step in the System's process, the Contractor's failure to submit a timely written request for the next step shall constitute the Contractor's waiver of the claim.
- 13.1.5 The Disputes processes in this Article, and claims introduced under them, shall survive Contract termination.

#### 13.2 PROCEDURES

# 13.2.1 Step 1, Project Manager's Determination

<u>Contractor's Written Request</u>. The Contractor shall submit, in writing to the University Project Manager, a request for a determination on a claim. The request must be submitted not later than 21 days after occurrence of the event giving rise to the claim, or not later than 21 days after the Contractor first recognizes the condition giving rise to the claim, whichever is later.

<u>Project Manager's Written Determination</u>. The University Project Manager will render the University's Initial Written Determination within 14 days. If this Determination is not acceptable to the Contractor, the Contractor may proceed with Step 2. If the University Project Manager fails to issue an Initial Written Determination within 14 days, the request for a determination on the claim shall be deemed denied and the Contractor may proceed with Step 2.

# 13.2.2 <u>Step 2, Contracting Officer's Pre-Claim Conference and University's Final Written</u> Determination

<u>Contractor's Written Request</u>. The Contractor shall submit, in writing to the University Contracting Officer, a request for a University's Final Written Determination on the claim. The request must be submitted not later than 7 days after receipt of the University's Initial Written Determination, or deemed denial of the Initial Written Determination, whichever is later.

<u>Pre-Claim Conference</u>. The University Contracting Officer will hold a Pre-Claim Conference with the Contractor to discuss the claim within 21 days of receipt of the request for the University's Final Written Determination. If the University Contracting Officer fails to hold a Pre-Claim Conference within the time frame set forth in this Article, the request shall be deemed denied and the Contractor may proceed with Step 3.

<u>University Final Written Determination</u>. The University Contracting Officer will render the University's Final Written Determination within 14 days after the Pre-Claim Conference. If this Determination is not acceptable to the Contractor, the Contractor may proceed with Step 3. If the University Contracting Officer fails to issue a Final Written Determination within 14 days of the Pre-Claim Conference, the request shall be deemed denied and the Contractor may proceed with Step 3.

# 13.2.3 Step 3, Agency Claim Review and Hearing and Agency Final Decision

<u>Contractor's Written Request</u>. The Contractor shall submit, in writing to the System's Office of the Chancellor, Director of Construction Management, a request for an Agency Claim Review by the Office of the Chancellor. The request must be submitted not later than 7 days after receipt of the University's Final Written Determination, or deemed denial of the request for the University's Final Written Determination, whichever is later.

Agency Claim Review and Hearing. An Agency Claim Review Panel will conduct a review of the claim. The Panel will review the information and arguments and determine if a Hearing is warranted. If conducted, the Hearing will be administered by the Panel and will allow both parties to present their respective cases.

<u>Mediation Option</u>. At any time throughout the Step 3 process, the Agency Claim Review Panel may recommend to the Contractor and the University that the claim be submitted to mediation under the Commonwealth of Pennsylvania, Office of General Counsel, Disputes Resolution Program. Mediation must be mutually agreed upon by the parties.

Agency Final Decision. If the claim is not resolved by mutual agreement of the parties, the Office of the Chancellor will, within 120 days after receipt of the Contractor's request for an Agency Claim Review, issue a written Agency Final Decision formulated by the Agency Claim Review Panel. The Decision will state the basis for the decision and inform the Contractor of the right to administrative and judicial review. A copy of the Agency's Final Decision will be delivered to the Contractor by certified, return-receipt-requested mail. The Agency's Final Decision issued by the Office of the Chancellor represents the final order of the Purchasing Agency. If the Agency's Final Decision is not issued within 120 days after the request for the Agency Claim Review was submitted, then the Claim shall be deemed denied. The 120-day period may be extended with the written consent of both the Office of the Chancellor and the Contractor.

Contractor's Appeal. The Contractor shall have all appeal rights as set forth in the Commonwealth Procurement Code (62 Pa.C.S.A. § 101, et seq.).

#### 13.3 ADMINISTRATIVE AND JUDICIAL REVIEW RIGHTS

- 13.3.1 <u>Board of Claims</u>. The Board of Claims has the exclusive jurisdiction for claims under this Contract, as provided in the Commonwealth Procurement Code (62 Pa.C.S.A. § 101, et seq.).
- Commonwealth Court. If either the Contractor or the System is aggrieved by the decision of the Board of Claims, they may appeal to the Commonwealth Court under the Commonwealth Judicial Code (42 P.S. § 763(a)(1)) (relating to direct appeals from government agencies) within 30 days after certification of the Board's decision.

#### 13.4 DISPUTES BY THE SYSTEM AGAINST THE CONTRACTOR

The System reserves its right to assert a claim against the Contractor in a court of proper jurisdiction.

# 13.5 DISPUTES BETWEEN CONTRACTORS

- The System shall have no obligation to any third parties for any claim, nor be a party to any claims, disputes, or actions between Separate Prime Contractors, or between Separate Prime Contractors and subcontractors; nor shall such claims, disputes, or actions be subject to Board of Claims proceedings.
- Should the Contractor, either directly or by the Contractor's subcontractors, or their respective agents, servants, or employees, cause damage or injury to the property or Work of any other Separate Prime Contractor, or their subcontractors, or by failing to perform the Contractor's Work (including the Work of the Contractor's subcontractors) hereunder with due diligence, delay any other Separate Prime Contractor, who shall suffer additional expense or damage thereby, the parties involved in such dispute shall settle by agreement or arbitrate said dispute by referring same to the American Arbitration Association. Said dispute shall be determined pursuant to the construction industry arbitration rules of the American Arbitration Association then in effect. Notice of the demand for arbitration shall be filed in writing with the other Separate Prime Contractors and with either the Northeast Regional Office of the American

Arbitration Association or another arbitrator mutually agreed upon by the relevant Separate Prime Contractors, and a copy shall be filed with the System. The demand for arbitration shall be made within a reasonable time after the claim, dispute or other matter in question has arisen. The System shall not be a party to the claim, dispute or other matter in question, but may be a witness in any arbitration at the request of any party involved in the arbitration.

Disputes between Separate Prime Contractors shall not delay completion of the Work, which shall be continued by the parties, subject to the rights herein before provided. The intent of this clause is to benefit the other Separate Prime Contractors on the Project or related projects and to serve as an indication of the mutual intent of the System and the Contractor that this clause raise such other Separate Prime Contractors to the status of third party beneficiaries only as to the terms and conditions of this Article. These provisions are provided as a benefit to the Contractor and they specifically exclude claims against the System for delay or other damages.

#### ARTICLE 14 - MISCELLANEOUS PROVISIONS AND LEGAL MATTERS

#### 14.1 INTEGRATION

This Contract contains all the terms and conditions agreed to by the parties hereto, and no other agreements, oral or otherwise, regarding the subject matter of this Contract exist.

# 14.2 APPLICABLE LAW

This contract is governed by and must be interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania and waives any claim or defense that such forum is not convenient or proper. Any Pennsylvania court or tribunal has in personam jurisdiction over the Contractor, and the Contractor consents to service of process in any manner authorized by Pennsylvania law. This provision may not be interpreted as a waiver or limitation of the University's rights or defenses.

#### 14.3 LEGISLATIVE AND POLICY UPDATES

It may be necessary from time to time to modify the provisions of this Contract to comply with legislative or policy changes, including updates to policies of the System. In such cases, the System will notify the Contractor of the necessary changes, and the changes will be incorporated into the Contract by Amendment.

#### 14.4 ASSIGNMENT

This Contract shall be binding on the parties hereto, their heirs, executors, administrators, successors, and assigns, but it may not be assigned by the Contractor without the prior written consent of the System.

# 14.5 ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and the System recognize that in actual economic practice, overcharges by the Contractor's suppliers, resulting from the violations of State or Federal anti-trust laws are, in fact, borne by the System. As part of the consideration for the award of this Contract, and intending to be legally bound, the Contractor assigns to the Commonwealth all rights, title and interest in and to any claims the Contractor now has, or may hereafter acquire, under State or

Federal anti-trust laws relating to the goods or services which are the subject of this Contract.

## 14.6 LIENS

- 14.6.1 In accordance with applicable Pennsylvania Mechanics' Lien Law of 1963, as amended, (49 P.S. § 1303), the parties hereto hereby specifically waive the right to file any mechanics or other lien or claim for Work done or material furnished in or about the performance of this Contract, and it is hereby expressly agreed that no such claim or claims shall be filed by anyone and that the Contractor shall not file nor permit any subcontractor, material man, mechanics or other person under him to file, nor shall any such contractor, subcontractor, material man or other person file, any mechanics or other lien or claim for Work done or material furnished in or about the performance of this Contract against the System, the Commonwealth of Pennsylvania, and/or the ground upon which the structure or Work herein provided for is erected or done, or against any structure thereon erected or to be erected, or against any structure or property whatsoever covered by the Contract.
- 14.6.2. Any person, co-partnership, association, or corporation furnishing labor, material, equipment or renting equipment or rendering public utility services in connection with performance of this Contract shall have a right of action to recover the cost thereof from the Contractor and the Surety on the bond given to secure the payment for such labor, material, equipment or equipment rental and services rendered by public utility as though such person or corporation had been named as obligee in such bond; subject to the provisions of the Commonwealth Procurement Code, as amended.

#### 14.7 NO THIRD PARTY RIGHTS

The Contractor shall indemnify and hold harmless the System and the Commonwealth of Pennsylvania against any costs incurred by the System or the Commonwealth of Pennsylvania (including without limitation amounts paid pursuant to judgments or settlements and as counsel fees) in consequence of any claim by a third party against the System or the Commonwealth of Pennsylvania, including without limitation any claim by an employee of the System, the Commonwealth of Pennsylvania, the Contractor, or a subcontractor, and any claim by a subcontractor or another contractor, whether filed before or after final payment, based on actual or alleged damage to or destruction of property or injury to persons allegedly caused by the Contractor, or any subcontractor, or by their respective employees, in connection with the Work. The System shall promptly notify the other party of the assertion of any claim against which the System or the Commonwealth is held harmless pursuant to this condition, shall give such other party the opportunity to defend any such claim, and shall not settle any such claim without the approval of the indemnifying party.

#### 14.8 HOLD HARMLESS

- 14.8.1 The Contractor shall indemnify and hold harmless the System, and their agents and employees, from and against all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from the performance of the Work, including any and all design work performed by or for the Contractor, provided that any such claim, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, any one directly or indirectly employed by any of them, or any one for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.
- 14.8.2 In any and all claims against the System, or against any of their agents or employees, by any employee or the Contractor, any subcontractor, any one directly or indirectly employed by any of them, or any one for whose acts any of them may be liable, the indemnification obligations

shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under workmen's compensation acts, disability benefit acts, or other employee benefit acts.

The obligations of the Contractor under this Article shall not extend to the liability of the Construction Manager, the Professional, or any other representative of the System, or any of their agents or employees, arising out of: (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, or (2) the giving of, or the failure to give, directions or instructions by the Construction Manager or the Professional, or their agents or employees, provided such giving, or failure to give, is the primary cause of the injury or damages.

#### 14.9 TAX LIABILITY AND OFFSET

- 14.9.1 The Contractor, by execution of this Contract, certifies that it has no outstanding tax liability to the Commonwealth of Pennsylvania; and authorizes the Department of Revenue to release information related to its tax liability to the System.
- 14.9.2 The certification of no outstanding tax liability is a material representation of fact upon which reliance is placed by the System in entering the Contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, the System may find the Contractor in default and terminate the Contract. Such erroneous certification may also be grounds for initiation of civil or criminal proceedings.
- 14.9.3 The System may set off the amount of any state tax liability or other obligation of the Contractor, or its subsidiaries, owed to the Commonwealth of Pennsylvania against any payments due the Contractor under any contract between the University and Contractor.

# 14.10 AUDIT OF RECORDS

The System may request to, at reasonable times and places, audit the books and records of the Contractor related to the Contract. The Contractor shall maintain books and records related to the Contract for a period of three (3) years from the date of final payment. The Contractor shall include a requirement in all agreements with subcontractors and suppliers that requires the subcontractor or supplier to maintain its records for the same length of time.

## 14.11 DEBARMENT OR SUSPENSION

The System shall recommend debarment or suspension action against the Contractor whenever there is substantial evidence that a cause for debarment or suspension under the provisions of the Commonwealth Procurement Code and the provisions of this Contract have occurred. The Contractor shall be notified of such action and given reasonable opportunity to be heard by the System. The System shall determine debarment or suspension actions appropriate for the offense in accordance with the provisions of the Commonwealth Procurement Code.

# 14.12 CONTRACTOR RESPONSIBILITY

14.12.1 Definition. For the purpose of these provisions, the term "Contractor" means as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania ("the Commonwealth").

The term also includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

# 14.12.2 Contractor Representations.

- a. The Contractor represents for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot make this representation, the Contractor shall submit, along with its contract, a written explanation of why such certification cannot be made.
- b. The Contractor represents that as of the date of its execution of this contract it has no tax liabilities or other Commonwealth of Pennsylvania obligations, or has filed a timely administrative or judicial appeal if such liabilities or obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.
- 14.12.3 Notification. The Contractor shall notify the System if, at any time during the term of this contract, it becomes delinquent in the payment of taxes, or other Commonwealth of Pennsylvania obligations, or if it or, to the best of its knowledge, any of its subcontractors are suspended or debarred by the State System of Higher Education, the Commonwealth of Pennsylvania, the federal government, or any other state or governmental entity. The Contractor shall provide this notification within 15 days of the date of suspension or debarment.
- 14.12.4 Default. The Contractor's failure to notify the System of its suspension or debarment by the Commonwealth of Pennsylvania, any other state, or the federal government constitutes an event of default of the contract with the University.
- 14.12.5 Reimbursement. The Contractor shall reimburse the Commonwealth of Pennsylvania for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this contract or any other agreement between the Contractor and the Commonwealth of Pennsylvania that results in the suspension or debarment of the Contractor. These costs include, but are not limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
- 14.12.6 Suspension and Debarment List. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by visiting the eMarketplace website at <a href="http://www.emarketplace.state.pa.us">http://www.emarketplace.state.pa.us</a> and clicking the Debarment list tab.

# 14.13 NONDISCRIMINATION/SEXUAL HARASSMENT

- 14.13.1 The Contractor agrees in the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the Contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the *Pennsylvania Human Relations Act* (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- 14.13.2 Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

- 14.13.3 The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment Clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.
- 14.13.4 The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the Contract relates.
- 14.13.5 The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment.
- 14.13.6 The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to *Title VII* of the *Civil Rights Act of 1964*, as amended, that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the Commonwealth for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.
- 14.13.7 The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.
- 14.13.8 The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes aware of any actions or occurrences that would result in violation of these provisions.
- 14.13.9 The Commonwealth may cancel or terminate the Contract and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the System may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

#### 14.14 CONTRACTOR INTEGRITY

- 14.14.1 Definitions. For purposes of these Contractor Integrity Provisions, the following definitions apply:
  - a. "Affiliate" means two or more entities where (a) a parent entity owns more than 50% of the voting stock of each of the entities; (b) a common shareholder or group of shareholders owns more than 50% of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.
  - b. "Contractor" means the individual or entity, that has entered into this contract with the System.
  - c. "Contractor Related Parties" means any Affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of five percent or more interest in the Contractor.

- d. "Financial Interest" means ownership of more than a five percent interest in any business or holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
- e. "Gratuity" means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, as may be amended, 4 Pa. Code §7.153(b), apply.
- f. "Non-bid Basis" means a contract awarded or executed by the University with Contractor without seeking bids or proposals from any other potential bidder or offeror.

# 14.14.2 Representations and Warranties.

- a. Contractor Representation and Warranties. The Contractor represents, to the best of its knowledge and belief, and warrants that within the last five years neither the Contractor nor Contractor Related Parties have:
  - been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;
  - ii. been suspended, debarred, or otherwise disqualified from entering into any contract with any governmental agency;
  - iii. had any business license or professional license suspended or revoked;
  - iv. had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and
  - v. been, and are not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency or civil anti-trust investigation by any federal, state, or local prosecuting or investigative agency.
- b. Contractor Explanation. If the Contractor cannot make the representations and warranties set forth above at the time of its submission of its bid or proposal or if this contract is awarded on a non-bid basis at the time of the execution of the contract, the Contractor shall submit a written explanation outlining the reasons why it cannot make those representations and warranties. The System may, based on its evaluation of the explanation provided, determine whether it is in the System's best interest to execute the contract.
- c. Further Representations. By submitting any bills, invoices, or requests for payment pursuant to this contract, the Contractor further represents that it has not violated any of these Contractor Integrity Provisions during the term of the contract.
- d. Notice. The Contractor shall immediately notify the System, in writing, if at any time during the term of the contract it becomes aware of any event that would cause the Contractor's certification or explanation to change. The Contractor acknowledges that the System may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made in these provisions are currently false or misleading due to

intervening factual circumstances or were false or misleading or should have been known to be false or misleading when entering into the contract.

- 14.14.3 Contractor Responsibilities. During the term of this contract, the Contractor shall:
  - a. maintain the highest standards of honesty and integrity.
  - b. take no action in violation of any applicable laws, regulations, or other requirements applicable to the Contractor that govern Commonwealth of Pennsylvania contracting and procurement.
  - c. establish and implement a written business integrity policy that includes, at a minimum, the requirements of these provisions as they relate to the Contractor's activity with the System and System employees and ensure that its employees comply with the policy.
  - d. not accept, agree to give, offer, confer, agree to confer, or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order, statement of policy, management directive, or bulletin applicable to the provision of goods or services under this contract.
  - e. not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the System in writing and the System consents to Contractor's financial interest. The Contractor must disclose the financial interest to the System at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than the date the Contractor signs the contract. The System shall be deemed to have consented if the required disclosure is received and all of the required Commonwealth signatures are affixed.
  - f. comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award.
  - g. comply with the requirements of Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a) if this contract was awarded on a Non-bid Basis.
  - h. immediately notify the System contracting officer or the Office of the State Inspector General, in writing, when the Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including, but not limited to, contact by a System officer or employee, which, if acted upon, would violate the ethical standards.
- 14.14.4 Investigations. If a State Inspector General investigation is initiated, the Contractor shall:
  - a. reimburse the Commonwealth of Pennsylvania for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and any agency of the Commonwealth of Pennsylvania that results in the suspension or debarment of the Contractor. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
  - b. cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth of Pennsylvania agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions and make identified Contractor employees available for interviews at reasonable times and places.

- c. upon the inquiry or request of an Inspector General, provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. This information may include, but is not limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract.
- 14.14.5 Termination. For violation of any of these Contractor Integrity Provisions, the System may terminate this and any other contract with the Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Contractor Integrity provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend the Contractor from doing business with the State System of Higher Education and the Commonwealth of Pennsylvania. These rights and remedies are cumulative, and the use or non-use of any one does not preclude the use of all or any other. These rights and remedies are in addition to those the System may have under law, statute, regulation, or contract.
- 14.14.6 Subcontracts. The Contractor shall include these Contractor Integrity Provisions in its contracts with all subcontractors providing goods or services under this contract. The incorporation of this provision in the Contractor's subcontracts does not create privity of contract between the System and any subcontractor, and no third-party beneficiaries are created by the inclusion of these provisions. If the Contractor becomes aware of a subcontractor's violation of these provisions, the Contractor shall use its best efforts to ensure the subcontractor's compliance with these provisions.

#### 14.15 COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee (excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business). For breach or violation of this warranty, the System shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract Price or consideration, or otherwise recover, the full amount of such commission, percentage, or contingent fee.

## 14.16 AMERICAN WITH DISABILITIES ACT

- 14.16.1 No Exclusion. Pursuant to the Americans with Disabilities Act, 42 U.S. Code § 12101, et seq., no qualified individual with a disability may, on the basis of the disability, be excluded from participation in this contract or from activities provided for under this contract.
- 14.16.2 Compliance. For all goods and services provided pursuant to this contract, the Contractor shall comply with Title II of the Americans with Disabilities Act, the "General Prohibitions Against Discrimination" set forth in 28 C. F. R. § 35.130, and all other regulations promulgated under Title II of the Americans with Disabilities Act that apply to state and local governments.
- 14.16.3 Indemnification. The Contractor shall indemnify the System against all third-party claims, suits, demands, losses, damages, costs, and expenses, including without limitation, litigation expenses, attorneys' fees, and liabilities, arising out of or in connection with the Contractor's failure or its employee's or agent's failure to comply with the provisions of paragraph a, as determined by the System's in its sole discretion.

# 14.17 RECYCLED MATERIALS

14.17.1 In accordance with Section 108, Recycled Materials, of the Commonwealth Procurement Code (62 Pa.C.S.A. § 108), all insulation products incorporated into the Project shall contain the following minimum percentages, by weight, of postconsumer recovered paper or recovered material:

Cellulose Loose-Fill and Spray-On 75 % Postconsumer Recovered Paper Perlite Composite Board 23% Postconsumer Recovered Paper

Plastic Rigid Foam, Polyisocyanurate/Polyurethane materials:

Rigid Foam 9% Recovered Material
Foam In-Place 5% Recovered Material
Glass Rigid Foam 6% Recovered Material
Phenolic Rigid Foam 5% Recovered Material
Rock Wool 50% Recovered Material

"Postconsumer Recovered Paper" is defined as "any paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards and used cordage; as well as all paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste."

"Recovered Materials" is defined as "waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process."

14.17.2 The Contractor may be required to provide to the System documentation of such content.

# 14.18 RECIPROCAL LIMITATIONS ACT

- 14.18.1 The Contractor shall comply with the requirements of the Reciprocal Limitations Act (62 Pa.C.S.A. § 107). The Act requires the System to not specify, use, or purchase supplies which are produced, manufactured, mined, grown, or performed in any state that prohibits the specification for, use of, or procurement of such supplies in or on its public buildings or other works when such supplies are not produced, manufactured, mined, or grown, or performed in that state.
- 14.18.2 The following is a list of the states which have been found by the Commonwealth of Pennsylvania to have prohibited the use of certain out-of-state supplies:

Georgia (forest products only)

New Jersey (various products, to include but not limited to: chain link fence, portable

sanitation units, glass, glazier supplies, carpet and cushion, shades, upholstery materials and supplies, room air conditioning, electrical supplies, plumbing supplies, hardware supplies, fasteners, lumber, building supplies, audio/visual equipment, fire extinguishers, fire hose, motor oils, fuel oil, Venetian blinds, and

drapes)

New Mexico construction

The above preferences are those related to construction contracts only. The complete list of preferences for all contracts, supplies, and services is available from the Commonwealth of Pennsylvania Department of General Services.

# 14.19 TRADE PRACTICES ACT

14.19.1 The Contractor shall comply with the requirements of the Trade Practices Act (71 P.S. § 773.101, et seq.). The Act prohibits the System from specifying, purchasing, or permitting to

be furnished or used, in any public works, aluminum or steel products made in a foreign country which has been determined as "discriminating" by the Commonwealth.

- 14.19.2 Aluminum or Steel Products means aluminum or steel products rolled, formed, shaped, drawn, extruded, forged cast, fabricated, or otherwise similarly processed, or processed by a combination of two or more of such operations, from aluminum or steel not made in the United States.
- 14.19.3 The countries of Brazil, South Korea, Spain, and Argentina have been found to discriminate against certain aluminum and steel products made in Pennsylvania. Therefore, the purchase or use of those countries' products, as listed below, is not permitted:

Brazil: Welded carbon steel pipes and tubes; carbon steel wire rod; tool steel; certain stainless steel bar; stainless steel wire rod and cold-form stainless steel bar; pre-stressed concrete steel wire strand; hot-rolled carbon steel plate in coil; hot-rolled carbon steel sheet, and cold-rolled carbon steel sheet.

Spain: Certain stainless steel products, including stainless steel wire rod, hot-rolled stainless steel bars and cold-formed stainless steel bars; pre-formed stainless steel bars; pre-stressed concrete steel wire strand; certain steel products including hot-rolled steel plate, cold-rolled carbon steel plate, carbon steel structural shapes, galvanized carbon steel sheet, hot-rolled carbon steel bars, and cold-formed carbon steel sheet.

South Korea: Welded carbon steel pipes and tubes hot-rolled carbon steel place; hot-rolled carbon steel sheet and galvanized steel sheet.

Argentina: Carbon steel wire rod and cold-rolled carbon steel sheet.

# 14.20 STEEL PRODUCTS PROCUREMENT ACT

- 14.20.1 The Contractor shall comply with the requirements of the Steel Products Procurement Act (73 P.S. 1881, et seq.). The Steel Products Procurement Act requires that any steel products being used or supplied in the performance of the Contract must be "steel products" as defined in the Act.
- 14.20.2 Steel Products are considered to be products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed, or processed by a combination of two or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer, or other steel making process.
  - a. Includes cast iron products.
  - b. Includes machinery and equipment listed in United States Department of Commerce Standard Industrial Classification 25 (furniture and fixture), 35 (machinery; except electrical), and 37 (transportation equipment) and made of, fabricated from, or containing steel components.
  - c. Does not include steel products which will not be incorporated into the Project (i.e., tools hammers/wrenches); scaffolding used to construct the Project and removed after completion; and trailers used as offices by contractors and removed after completion of the Project.
  - d. Transportation equipment shall be determined to be a United States steel product only if it complies with Section 165 of Public Law §§ 97-424 (96 Stat. 2136).
  - e. System vs. Product. Each "product" in the system is identified as a separate and distinct steel product.

When the System's design specifies trade names, catalog numbers, and manufacturers for materials and equipment, they are provided for the purpose of establishing a standard of quality, performance, and appearance, and for establishing a standard of competitive bidding. The use of such descriptive information will not relieve the Contractor with compliance with all respects of the Act.

- 14.20.3 Origin of Steel.
  - a. If the product contains 100 percent United States manufactured steel, it is a "steel product" under the Act, no matter where the non-steel components of the product are manufactured.
  - b. If the product contains 100 percent steel manufactured in a foreign country, its acquisition is prohibited.
  - c. If the product contains both foreign and United States manufactured steel (no matter how little or how much of each), the product shall be determined to be a United States steel product if at least 75 percent of the total cost of the articles, materials, and supplies have been mined, produced, or manufactured in the United States.
- 14.20.4 If 100 percent of the steel product is identifiable (i.e., stamped United States Steel), then the Contractor shall submit certification documentation. If the steel product is unidentified, the Contractor shall provide documentation including, but not limited to: invoices, bills of lading, and mill certification. The System is authorized to withholding payments until the documentation or certification has been provided. If payments have been made but should not have been made because of noncompliance, the System or the Commonwealth Attorney General may recover the payments directly from the Contractor, subcontractor, or manufacturer who did not comply. Additionally, any person who willfully violates the Act shall be prohibited from submitting bids or performing work for the Commonwealth for five years.
- 14.20.5 The Steel Products Procurement Act requirement may be waived by the System when the System determines that steel products are not produced in the United States in sufficient quantities to meet the requirements of the Contract and/or when the product appears on the Department of General Services' annual Final List of Exempt Machinery and Equipment Steel Products.

# 14.21 ENVIRONMENTAL QUALITY CONTROL

- 14.21.1 All Prime Contractors and their subcontractors shall perform the Work in a manner that shall minimize the possibility of air, water, land, and noise pollution.
- Each Prime Contractor shall comply with all statutes and regulations, as amended, concerning environmental quality control administered by the Department of Environmental Protection, including but not limited to Clean Streams Law, Pennsylvania Sewage Facilities Act, Air Pollution Control Act, Surface Mining Conservation and Reclamation Act, Bituminous Coal Open Pit Mining Conservation Act, Dams and Encroachments Act, Water Well Driller's Act, Water Works Act, and the Atomic Energy Act. The Contractor shall be solely responsible for securing all required permits and for any violations.
- 14.21.3 Storage, collection, transportation, processing, and final disposal of solid waste shall be in accordance with regulations and standards of the Commonwealth Department of Environmental Protection (DEP). Immediately upon notice of award of the Contract the Contractor shall apply for the necessary permits from DEP. A copy of this permit must be submitted to the System before commencing waste disposal.

# 14.22 PA E-VERIFY

- The Commonwealth of Pennsylvania enacted Act 127 of 2012, known as the Public Works Employment Verification Act ('the Act'), which requires all public work contractors and subcontractors to utilize the Federal Government's E-Verify system (EVP) to ensure that all employees performing work on public work projects are authorized to work in the United States. The Department of General Services' (DGS) Public Works Employment Verification Compliance Program is responsible for the administration, education, and enforcement of the Act. Information on the Act and DGS' program are available on DGS' web site.
- 14.22.2 This Contract falls under the Act and the associated DGS program. Contractors shall comply

with all requirements of the Act, and also require each of their subcontractors to comply.

Subcontracts between a public works contractor and its subcontractors shall contain notification of the applicability of the Act, information regarding the use of the EVP, and reference to DGS' website to obtain a copy of the required Commonwealth of Pennsylvania Public Works Employment Verification Form (the Form). Additionally, Contractors shall require each of their subcontractors to sign and submit to the System, prior to that subcontractor performing work at the project site, the Form. The Form is available on DGS' web site and/or through the university.

# 14.23 RIGHT TO KNOW LAW

- 14.23.1 Applicability. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this contract.
- 14.23.2 Contractor Assistance. If the System needs the Contractor's assistance in any matter arising out of the RTKL related to this contract, the System shall notify the Contractor that it requires the Contractor's assistance, and the Contractor shall provide to the System:
  - access to, and copies of, any document or information in the Contractor's possession (Requested Information) arising out of this contract that the System reasonably believes is a public record under the RTKL, within ten calendar days after receipt of written notification; and
  - b. any other assistance as the System may reasonably request, in order to comply with the RTKL with respect to this contract.
- 14.23.3 Trade Secret or Confidential Proprietary Information. If the Contractor considers the Requested Information to include a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, the Contractor shall notify the System and provide, within seven calendar days of receipt of the written notice a written statement, signed by a representative of the Contractor, that explains why the requested material is exempt from public disclosure under the RTKL. If the System determines that the Requested Information is clearly not exempt from disclosure, the Contractor shall provide the Requested Information to the System within five business days of receipt of written notice of the System's determination.

#### 14.23.4 Reimbursement.

- a. System Reimbursement. If the Contractor fails to provide the Requested Information and the System is ordered to produce the Requested Information, the Contractor shall reimburse the System for any damages, penalties, or costs that the System may incur as a result of the Contractor's failure, including any statutory damages assessed against the System.
- b. Contractor Reimbursement. The System will reimburse the Contractor for any costs that the Contractor incurs as a direct result of complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL.
- 14.23.5 Challenges of University Release. The Contractor may file a legal challenge to any System decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, the Contractor shall reimburse the System for any legal expenses incurred by the System as a result of the challenge, including any damages,

penalties or costs that the System may incur as a result of the Contractor's legal challenge, regardless of the outcome.

- 14.23.6 Waiver. As between the parties, the Contractor waives all rights or remedies that may be available to it as a result of the System's disclosure of Requested Information pursuant to the RTKL.
- 14.23.7 Survival. The Contractor's obligations contained in this Section survive the termination or expiration of this contract.

# 14.24 ALTERNATIVE ENERGY PORTFOLIO STANDARDS ACT (PA ACT No. 2004-213)

The System shall retain the rights to any and all possible Demand-Side Management Alternative Energy Credits, and any and all possible Distributed Generation System Alternative Energy Credits, as provided for under Pennsylvania's Alternative Energy Portfolio Standards Act, or under any other similar Pennsylvania or United States laws, statutes, regulations, or policies, which may be realized as a result of the Work under this Contract.

#### 14.25 TAX CREDITS OR TAX DEDUCTIONS FOR ENERGY EFFICIENCY PROJECTS

The Contractor shall not apply for, without prior written approval of the System, any tax credits or deductions for energy efficient building property installed as part of this Contract, as the person primarily responsible for designing or installing the property, in lieu of the System, as allowed by the United States Energy Policy Act of 2005, by Section 179D of the United States Internal Revenue Service (IRS) code, or by any other similar laws, statutes, regulations, or provisions. Under such System approval, the value of the resultant tax savings shall be shared by the Contractor with the System, at a percent agreed upon when the System's approval is provided. The System's share of the savings shall be credited to the System under this Contract, or alternately shall be paid to the System as a separate payment. This Article is subject to regulations promulgated by the United States Department of Energy and the IRS.

# 14.26 NON-APPROPRIATION OF FUNDS

The System's obligation to make payments during any Commonwealth fiscal year succeeding the current fiscal year shall be subject to availability and appropriation of funds. When funds (System, State and/or Federal) are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal year period, the System shall have the right to terminate the Contract and/or any work order or purchase order issued under it. The Contractor shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the supplies or services delivered under the Contract. Such reimbursement shall not include loss of profit, loss of use of money, or administrative or overhead costs. The reimbursement amount may be paid from any appropriations available for that purpose.

# STATE SYSTEM OF HIGHER EDUCATION COMMONWEALTH OF PENNSYLVANIA

# INSURANCE RIDER FOR THE CONSTRUCTION CONTRACT

# 1.1 GENERAL

- 1.1.1 All policies shall be issued by insurance companies authorized to conduct such business under the laws of the Commonwealth of Pennsylvania, and which have been issued a Financial Strength Rating of A- or better by A.M. Best Company, Inc.
- 1.1.2 Coverage shall be in place prior to any Work taking place on site, and shall be maintained without interruption until the time specified for each type of insurance in the following paragraphs, or unless termination of coverage is approved by the System.
- 1.1.3 If the Contractor fails to maintain, at any time, the requirements of this Rider, the System may terminate or suspend the Work of the Contractor, according to the provisions of the General Conditions for the Construction Contract.

#### 1.2 REQUIRED DOCUMENTATION

- 1.2.1 Prior to Notice to Proceed, the Contractor shall furnish to the System a Certificate of Insurance indicating the existence of the insurance required under this Article, the amount of coverage of such insurance, and the amount of the deductible. The Certificate shall cite the applicable project, contract, or site location. The Certificate shall contain a provision stating that coverages will not be canceled or changed prior to the expiration date without giving 30-day prior written notice to the System. The System shall be expressly endorsed as a cancellation notice recipient.
- 1.2.2 The System shall be named as an Additional Insured on the liability policies. The coverage shall be primary and non-contributory. A copy of the policy's Additional Insureds endorsement shall be provided with the Certificate.
- 1.2.3 Renewal Certificates shall be provided to the System prior to the expiration date shown on the Certificate.
- 1.2.4 Upon request, the Contractor shall submit a certified copy of the entire policy to the System.

# 1.3 CONTRACTOR'S LIABILITY INSURANCE

- 1.3.1 The Contractor shall purchase and maintain such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Coverage shall provide for:
  - a. claims under Workers Compensation and other similar employee benefit laws, with coverage of at least the Pennsylvania-mandated minimums;
  - b. claims for damages because of bodily injury to, occupational sickness or disease of, or death of the Contractor's employees, and claims insured by usual personal injury coverage;
  - c. claims for damages because of bodily injury to, sickness or disease of, or death of any person other than the Contractor's employees, and claims insured by usual personal injury coverage:

- d. and claims for damages because of injury to or destruction of tangible property including loss of use resulting therefrom.
- 1.3.2 The Contractor's general liability insurance shall be written for not less than \$1,000,000 for each occurrence, and for not less than \$3,000,000 general aggregate.
- 1.3.3 The Contractor's automobile insurance shall be written for not less than \$1,000,000 combined single limit.
- 1.3.4 The Contractor may have umbrella liability insurance to meet the required aggregate limits for the general liability, automobile, and Workers Compensation insurances.
- 1.3.5 The Contractor's liability insurances shall also provide for:
  - a. completed operations and products liability coverage;
  - b. contractual liability coverage as necessary to meet the Contractor's obligations under Article 14.7, No Third Party Rights, and Article 14.8, Hold Harmless, of the General Conditions for the Construction Contract;
  - c. and, if required by the Contract Special Conditions or Technical Specifications, special property damage liability coverage commonly referred to as XCU (explosion, collapse, and underground damage), and/or adequate protection against special hazards when required (i.e. blasting, etc.).
- 1.3.6 The Contractor's liability policies shall contain a waiver of subrogation in favor of the System.
- 1.3.7 The Contractor's liability insurances shall remain in force for at least three (3) years after Substantial Completion.

# 1.4 SUBCONTRACTORS' LIABILITY INSURANCE

- 1.4.1 The Contractor shall either require each of its subcontractors to procure and to maintain during the life of its subcontract Workers Compensation, general liability, automobile liability, and property damage liability insurance of the type and in the same amounts as specified in this Article, or insure the activity of its subcontractors in its own insurance policies.
- 1.4.2 The Contractor shall submit to the System, prior to any subcontractors or sub-subcontractors commencing any on site work, evidence that the subcontractors or sub-subcontractors are covered by insurance as required herein.
- 1.4.3 The Contractor shall require all subcontractors' liability policies to contain a waiver of subrogation in favor of the System.

### 1.5 PROPERTY INSURANCE

- 1.5.1 The Contractor shall purchase and maintain property insurance for all insurable Work included in the Contract, in the amount of the original Contract Sum as well as subsequent changes thereto. The property insurance may be in the form of Builder's Risk insurance or an Installation Floater, as appropriate.
- 1.5.2 The property insurance shall be on an all-risk policy form, and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage due to, without duplication of coverage, windstorm and other weather, as well as due to theft, vandalism, malicious mischief, falsework, testing and startup, temporary facilities, and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for the services and expenses required as a result of such insured loss and incurred by the System, the System's Professional, and any of the System's agents. The Contractor shall submit to the System for its approval all items deemed to be uninsurable.

Contract for Construction 71-FA-8.2 Contract No. ESU 30-2107

- 1.5.3 The property insurance shall be in the names of the System and the Contractor as their respective interests may appear, in full 100% of the insurable value thereof, and shall fully protect the interests of the System, the Commonwealth of Pennsylvania, the Contractor, subcontractors, and sub-subcontractors. The Contractor shall be responsible for paying policy deductibles.
- 1.5.4 The Contractor's property insurance shall remain in force until the acceptance of the completed Work by the System. The Contractor shall maintain adequate property insurance to cover any materials and temporary facilities remaining after acceptance of the completed Work.
- 1.5.5 Partial occupancy or use in accordance with Article 10.1.2 of the General Conditions for the Construction Contract shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise.
- 1.5.6 If expressly required elsewhere in the contract documents, the Contractor may be required to obtain insurance, or additions to the property insurance, to insure against the perils of flood, earthquake, sinkhole, and/or other such risks.

Project Name:	Exterior Masonry Repair - Minsi Hall (ESU 30-2107)
General Description:	Exterior masonry support steel, and exterior brickwork repairs.
Project Locality	East Stroudsburg University, E
Awarding Agency:	East Stroudsburg University
Contract Award Date:	1/31/2025
Serial Number:	24-10592
Project Classification:	Building
Determination Date:	12/10/2024
Assigned Field Office:	Scranton
Field Office Phone Number:	(570)963-4577
Toll Free Phone Number:	(877)214-3962
Project County:	Monroe County

Asbestos & Insulation Workers	Project: 24-10592 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers   771/2025   \$37.08   \$28.17   \$65.2     Boilermaker (Commercial, Institutional, and Minor Repair Work)   \$34/2024   \$36.71   \$19.13   \$55.5     Boilermakers   1/1/2023   \$51.27   \$35.30   \$86.5     Boilermakers   1/1/2024   \$52.10   \$35.72   \$35.50   \$86.5     Boilermakers   1/1/2024   \$38.84   \$19.67   \$58.5     Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   1/1/2025   \$40.14   \$22.07   \$62.2     Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   1/1/2025   \$40.14   \$22.07   \$62.2     Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   1/1/2023   \$40.63   \$21.22   \$61.5     Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   1/1/2023   \$40.63   \$21.22   \$61.5     Carpenters - Piledriver/Welder   1/1/2023   \$40.63   \$21.22   \$61.5     Carpenters - Piledriver/Welder   1/1/2025   \$43.43   \$21.97   \$64.1     Carpenters - Piledriver/Welder   1/1/2026   \$44.63   \$22.17   \$66.1     Carpenters - Piledriver/Welder   1/1/2026   \$44.63   \$22.27   \$66.1     Carpenters, Drywall Hangers, Framers, Instrument   5/1/2023   \$34.03   \$18.63   \$23.47   \$68.1     Carpenters, Drywall Hangers, Framers, Instrument   5/1/2023   \$34.03   \$18.63   \$22.42   \$66.1     Carpenters, Drywall Hangers, Framers, Instrument   5/1/2024   \$35.23   \$18.63   \$23.47   \$68.1     Carpenters & Pilestrers   4/30/2023   \$29.66   \$22.42   \$52.0     Cement Finishers & Pilestrers   5/4/2025   \$33.36   \$22.42   \$56.0     Cement Finishers & Pilestrers   5/4/2025   \$33.36   \$22.42   \$56.0     Cement Hasons   6/1/2024   \$33.77   \$34.69   \$31.60   \$31.50   \$31.60     Cement Hasons   6/1/2024   \$33.77   \$34.69   \$31.60   \$31.50   \$31.60   \$31.50   \$31.60   \$31.50   \$31.60   \$31.50   \$31.60   \$31.50   \$31.60   \$31.50   \$31.60   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$31.50   \$3	Asbestos & Insulation Workers	7/1/2023		\$37.08	\$21.92	\$59.00
Bollermaker (Commercial, Institutional, and Minor Repair Work)   \$36.71   \$19.13   \$55.8   Repair Work)   \$11/2023   \$51.27   \$35.30   \$86.5   Bollermakers   \$11/12024   \$52.10   \$35.72   \$37.5   Bollermakers   \$11/12024   \$52.10   \$35.72   \$37.5   Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   \$470/2023   \$38.84   \$19.67   \$58.5   Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   \$4728/2024   \$38.29   \$22.07   \$60.5   Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   \$4728/2024   \$38.29   \$22.07   \$60.5   Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   \$4728/2024   \$34.01   \$22.07   \$62.2   Cleaners   Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   \$472025   \$40.14   \$22.07   \$62.2   Cleaners   \$1742024   \$41.99   \$22.07   \$64.1   Carpenters - Piledriver/Welder   \$17/2023   \$40.63   \$21.22   \$61.8   Carpenters - Piledriver/Welder   \$17/2024   \$42.13   \$21.97   \$64.1   Carpenters - Piledriver/Welder   \$17/2025   \$43.38   \$22.27   \$66.1   Carpenters - Piledriver/Welder   \$17/2026   \$44.63   \$23.47   \$64.1   Carpenters - Piledriver/Welder   \$17/2026   \$44.63   \$23.47   \$66.1   Carpenters - Piledriver/Welder   \$17/2026   \$33.60   \$22.42   \$66.1   Carpenters - Piledriver/Welder   \$17/2024   \$33.60   \$22.42   \$56.0   Carpenters - Piledriver/Welder   \$17/2024   \$33.60   \$22.42   \$56.0   Cement Finishers & Pilasterers   \$4788/2024   \$33.60   \$22.42   \$56.0   Cement Finishers & Pilasterers   \$6742024   \$33.60   \$22.42   \$	Asbestos & Insulation Workers	7/1/2024		\$37.08	\$24.92	\$62.00
Boilermakers	Asbestos & Insulation Workers	7/1/2025		\$37.08	\$28.17	\$65.25
Boilermakers		3/1/2024		\$36.71	\$19.13	\$55.84
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners   4/30/2023   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.84   \$19.87   \$58.85   \$38.829   \$22.07   \$69.35   \$38.829   \$22.07   \$69.35   \$38.829   \$22.07   \$69.35   \$38.829   \$	Boilermakers	1/1/2023		\$51.27	\$35.30	\$86.57
Cleaners	Boilermakers	1/1/2024		\$52.10	\$35.72	\$87.82
Cleaners		4/30/2023		\$38.84	\$19.67	\$58.51
Cleaners		4/28/2024		\$38.29	\$22.07	\$60.36
Carpenters - Piledriver/Welder	· · · · · · · · · · · · · · · · · · ·	5/4/2025		\$40.14	\$22.07	\$62.21
Carpenters - Piledriver/Welder         1/1/2024         \$42.13         \$21.97         \$64.1           Carpenters - Piledriver/Welder         1/1/2025         \$43.38         \$22.72         \$66.1           Carpenters - Piledriver/Welder         1/1/2026         \$44.63         \$23.47         \$68.1           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$52.6           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$53.6           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         4/30/2023         \$29.66         \$22.42         \$52.0           Cement Finishers & Plasterers         4/30/2023         \$29.66         \$22.42         \$52.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$58.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2023         \$37.13         \$14.50         \$51.6           Cement Masons         6/1/2024         \$37.8         \$21.57		5/3/2026		\$41.99	\$22.07	\$64.06
Carpenters - Piledriver/Welder         1/1/2025         \$43.38         \$22.72         \$66.1           Carpenters - Piledriver/Welder         1/1/2026         \$44.63         \$23.47         \$68.1           Carpenters - Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$52.6           Carpenters - Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$53.8           Cement Finishers & Plasterers         4/30/2023         \$29.66         \$22.42         \$52.6           Cement Finishers & Plasterers         4/28/2024         \$31.66         \$22.42         \$54.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/4/2025         \$35.66         \$22.42         \$56.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.0           Cement Masons         6/1/2023         \$37.13         \$14.50         \$51.6           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$21.57         \$51.1	Carpenters - Piledriver/Welder	1/1/2023		\$40.63	\$21.22	\$61.85
Carpenters - Piledriver/Welder         1/1/2026         \$44.63         \$23.47         \$68.1           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$34.03         \$18.63         \$52.6           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$53.8           Cement Finishers & Plasterers         4/30/2023         \$29.66         \$22.42         \$52.0           Cement Finishers & Plasterers         4/28/2024         \$31.66         \$22.42         \$54.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/4/2025         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2023         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2021         \$29.58         \$21.57         \$51.1           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.           Drywall Finisher	Carpenters - Piledriver/Welder	1/1/2024		\$42.13	\$21.97	\$64.10
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$34.03         \$18.63         \$52.6           Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers         5/1/2024         \$35.23         \$18.63         \$53.8           Cement Finishers & Plasterers         4/30/2023         \$29.66         \$22.42         \$52.6           Cement Finishers & Plasterers         4/28/2024         \$31.66         \$22.42         \$54.0           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/3/2026         \$35.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/3/2026         \$35.66         \$22.42         \$56.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2023         \$37.13         \$14.50         \$51.6           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.2           Drywall Finisher         5/1/2024         \$33.73         \$15.05         \$52.5           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.           Drywall Finisher         5/1/	Carpenters - Piledriver/Welder	1/1/2025		\$43.38	\$22.72	\$66.10
Men, Lathers, Soft Floor Layers       5/1/2024       \$35.23       \$18.63       \$53.8         Campenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers       4/30/2023       \$29.66       \$22.42       \$52.0         Cement Finishers & Plasterers       4/28/2024       \$31.66       \$22.42       \$54.0         Cement Finishers & Plasterers       5/4/2025       \$33.66       \$22.42       \$56.0         Cement Finishers & Plasterers       5/3/2026       \$35.66       \$22.42       \$58.0         Cement Masons       6/1/2022       \$36.48       \$14.00       \$50.4         Cement Masons       6/1/2023       \$37.13       \$14.50       \$51.6         Cement Masons       6/1/2024       \$37.76       \$15.05       \$52.8         Drywall Finisher       5/1/2021       \$29.58       \$21.57       \$51.0         Drywall Finisher       5/1/2022       \$30.71       \$22.36       \$53.0         Drywall Finisher       5/1/2023       \$31.24       \$23.58       \$64.6         Drywall Finisher       5/1/2023       \$31.82       \$24.75       \$56.5         Electricians       5/30/2022       \$60.27       \$37.06       \$97.3         Electricians       5/29/2023       \$61.87       \$38.66	Carpenters - Piledriver/Welder	1/1/2026		\$44.63	\$23.47	\$68.10
Men, Lathers, Soft Floor Layers         4/30/2023         \$29.66         \$22.42         \$52.0           Cement Finishers & Plasterers         4/26/2024         \$31.66         \$22.42         \$54.6           Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/3/2026         \$35.66         \$22.42         \$56.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2023         \$37.13         \$14.50         \$51.6           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2024         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$51.7           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.82         \$24.75         \$56.8           Electricians         5/1/2024         \$31.82         \$24.75         \$56.8           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor		5/1/2023		\$34.03	\$18.63	\$52.66
Cement Finishers & Plasterers       4/28/2024       \$31.66       \$22.42       \$54.0         Cement Finishers & Plasterers       5/4/2025       \$33.66       \$22.42       \$56.0         Cement Finishers & Plasterers       5/3/2026       \$35.66       \$22.42       \$58.0         Cement Masons       6/1/2022       \$36.48       \$14.00       \$50.4         Cement Masons       6/1/2024       \$37.73       \$15.05       \$52.6         Drywall Finisher       5/1/2021       \$29.58       \$21.57       \$51.1         Drywall Finisher       5/1/2022       \$30.71       \$22.36       \$53.0         Drywall Finisher       5/1/2023       \$31.24       \$23.58       \$54.8         Drywall Finisher       5/1/2024       \$31.82       \$24.75       \$56.5         Electricians       5/30/2022       \$60.27       \$37.06       \$97.3         Electricians       5/29/2023       \$61.87       \$38.66       \$100.5         Elevator Constructor       1/1/2024       \$63.38       \$40.25       \$103.6         Elevator Constructor       1/1/2024       \$58.88       \$43.90       \$102.7         Glazier       5/1/2024       \$39.48       \$23.81       \$63.2         Iron Workers (Bridge, Str		5/1/2024		\$35.23	\$18.63	\$53.86
Cement Finishers & Plasterers         5/4/2025         \$33.66         \$22.42         \$56.0           Cement Finishers & Plasterers         5/3/2026         \$35.66         \$22.42         \$58.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2023         \$37.13         \$14.50         \$51.6           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.6           Drywall Finisher         5/1/2021         \$29.58         \$21.57         \$51.1           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.82         \$24.75         \$56.5           Electricians         5/30/2022         \$30.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2024         \$39.	Cement Finishers & Plasterers	4/30/2023		\$29.66	\$22.42	\$52.08
Cement Finishers & Plasterers         5/3/2026         \$35.66         \$22.42         \$58.0           Cement Masons         6/1/2022         \$36.48         \$14.00         \$50.4           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.8           Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2021         \$29.58         \$21.57         \$51.1           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$54.8           Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$56.5           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.6           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)<	Cement Finishers & Plasterers	4/28/2024		\$31.66	\$22.42	\$54.08
Cement Masons       6/1/2022       \$36.48       \$14.00       \$50.4         Cement Masons       6/1/2023       \$37.13       \$14.50       \$51.6         Cement Masons       6/1/2024       \$37.78       \$15.05       \$52.8         Drywall Finisher       5/1/2021       \$29.58       \$21.57       \$51.1         Drywall Finisher       5/1/2022       \$30.71       \$22.36       \$53.0         Drywall Finisher       5/1/2023       \$31.24       \$23.58       \$54.8         Drywall Finisher       5/1/2024       \$31.82       \$24.75       \$56.5         Electricians       5/30/2022       \$60.27       \$37.06       \$97.3         Electricians       5/29/2023       \$61.87       \$38.66       \$100.5         Elevator Constructor       1/1/2023       \$66.46       \$38.36       \$94.6         Elevator Constructor       1/1/2024       \$58.88       \$43.90       \$102.7         Glazier       5/1/2023       \$37.71       \$23.68       \$61.3         Glazier       5/1/2024       \$39.48       \$23.81       \$63.2         Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)       7/1/2023       \$36.26       \$31.38       \$67.6         Iron Workers (Bridge,	Cement Finishers & Plasterers	5/4/2025		\$33.66	\$22.42	\$56.08
Cement Masons       6/1/2023       \$37.13       \$14.50       \$51.6         Cement Masons       6/1/2024       \$37.78       \$15.05       \$52.8         Drywall Finisher       5/1/2021       \$29.58       \$21.57       \$51.1         Drywall Finisher       5/1/2022       \$30.71       \$22.36       \$53.0         Drywall Finisher       5/1/2023       \$31.24       \$23.58       \$54.8         Drywall Finisher       5/1/2024       \$31.82       \$24.75       \$56.8         Electricians       5/30/2022       \$60.27       \$37.06       \$97.3         Electricians       5/29/2023       \$61.87       \$38.66       \$100.5         Electricians       6/3/2024       \$63.38       \$40.25       \$103.6         Elevator Constructor       1/1/2023       \$56.46       \$38.36       \$94.5         Elevator Constructor       1/1/2024       \$58.88       \$43.90       \$102.7         Glazier       5/1/2023       \$37.71       \$23.68       \$61.3         Glazier       5/1/2024       \$39.48       \$23.81       \$63.2         Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)       7/1/2024       \$34.01       \$31.13       \$65.1         Iron Workers (Bridge,	Cement Finishers & Plasterers	5/3/2026		\$35.66	\$22.42	\$58.08
Cement Masons         6/1/2024         \$37.78         \$15.05         \$52.8           Drywall Finisher         5/1/2021         \$29.58         \$21.57         \$51.1           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$54.8           Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$66.5           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$31.38         \$67.6	Cement Masons	6/1/2022		\$36.48	\$14.00	\$50.48
Drywall Finisher         5/1/2021         \$29.58         \$21.57         \$51.1           Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$54.8           Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$56.8           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.5           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2023         \$37.71         \$23.68         \$61.3           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8 <td>Cement Masons</td> <td>6/1/2023</td> <td></td> <td>\$37.13</td> <td>\$14.50</td> <td>\$51.63</td>	Cement Masons	6/1/2023		\$37.13	\$14.50	\$51.63
Drywall Finisher         5/1/2022         \$30.71         \$22.36         \$53.0           Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$54.8           Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$66.8           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2023         \$37.71         \$23.68         \$61.3           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Cement Masons	6/1/2024		\$37.78	\$15.05	\$52.83
Drywall Finisher         5/1/2023         \$31.24         \$23.58         \$54.8           Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$56.5           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2023         \$37.71         \$23.68         \$61.3           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2023         \$36.26         \$31.38         \$67.6           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Drywall Finisher	5/1/2021		\$29.58	\$21.57	\$51.15
Drywall Finisher         5/1/2024         \$31.82         \$24.75         \$56.5           Electricians         5/30/2022         \$60.27         \$37.06         \$97.3           Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2023         \$37.71         \$23.68         \$61.3           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2023         \$36.26         \$31.38         \$67.6           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Drywall Finisher	5/1/2022		\$30.71	\$22.36	\$53.07
Electricians   5/30/2022   \$60.27   \$37.06   \$97.35	Drywall Finisher	5/1/2023		\$31.24	\$23.58	\$54.82
Electricians         5/29/2023         \$61.87         \$38.66         \$100.5           Electricians         6/3/2024         \$63.38         \$40.25         \$103.6           Elevator Constructor         1/1/2023         \$56.46         \$38.36         \$94.8           Elevator Constructor         1/1/2024         \$58.88         \$43.90         \$102.7           Glazier         5/1/2023         \$37.71         \$23.68         \$61.3           Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2023         \$36.26         \$31.38         \$67.6           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Drywall Finisher	5/1/2024		\$31.82	\$24.75	\$56.57
Electricians 6/3/2024 \$63.38 \$40.25 \$103.6 Elevator Constructor 1/1/2023 \$56.46 \$38.36 \$94.8 Elevator Constructor 1/1/2024 \$58.88 \$43.90 \$102.7 Glazier 5/1/2023 \$37.71 \$23.68 \$61.3 Glazier 5/1/2024 \$39.48 \$23.81 \$63.2 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2021 \$34.01 \$31.13 \$65.1 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) \$36.26 \$31.38 \$67.6 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) \$37.26 \$32.63 \$69.8	Electricians	5/30/2022		\$60.27	\$37.06	\$97.33
Elevator Constructor 1/1/2023 \$56.46 \$38.36 \$94.8 Elevator Constructor 1/1/2024 \$58.88 \$43.90 \$102.7 Glazier 5/1/2023 \$37.71 \$23.68 \$61.3 Glazier 5/1/2024 \$39.48 \$23.81 \$63.2 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2021 \$34.01 \$31.13 \$65.1 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) \$36.26 \$31.38 \$67.6 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2024 \$37.26 \$32.63 \$69.8 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) \$37.26 \$32.63 \$69.8 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	Electricians	5/29/2023		\$61.87	\$38.66	\$100.53
Elevator Constructor 1/1/2024 \$58.88 \$43.90 \$102.7 Glazier 5/1/2023 \$37.71 \$23.68 \$61.3 Glazier 5/1/2024 \$39.48 \$23.81 \$63.2 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2021 \$34.01 \$31.13 \$65.1 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2023 \$36.26 \$31.38 \$67.6 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2024 \$37.26 \$32.63 \$69.8	Electricians	6/3/2024		\$63.38	\$40.25	\$103.63
Glazier 5/1/2023 \$37.71 \$23.68 \$61.3 Glazier 5/1/2024 \$39.48 \$23.81 \$63.2 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2021 \$34.01 \$31.13 \$65.1 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) \$36.26 \$31.38 \$67.6 Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing) 7/1/2024 \$37.26 \$32.63 \$69.8	Elevator Constructor	1/1/2023		\$56.46	\$38.36	\$94.82
Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2023         \$36.26         \$31.38         \$67.6           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Elevator Constructor	1/1/2024		\$58.88	\$43.90	\$102.78
Glazier         5/1/2024         \$39.48         \$23.81         \$63.2           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2021         \$34.01         \$31.13         \$65.1           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2023         \$36.26         \$31.38         \$67.6           Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)         7/1/2024         \$37.26         \$32.63         \$69.8	Glazier				\$23.68	\$61.39
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)  1. Sat. 1.						\$63.29
Precast, Reinforcing)  Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)  7/1/2024  \$37.26 \$32.63 \$69.8		7/1/2021		\$34.01	\$31.13	\$65.14
Precast, Reinforcing)		7/1/2023		\$36.26	\$31.38	\$67.64
Laborers (Class 01 - See notes) 5/1/2023 \$30.59 \$18.99 \$49.5		7/1/2024		\$37.26	\$32.63	\$69.89
	Laborers (Class 01 - See notes)	5/1/2023		\$30.59	\$18.99	\$49.58

Commonwealth of Pennsylvania Report Date: 12/16/2024

ort Date: 12/16/2024 Page 2

Project: 24-10592 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 01 - See notes)	5/1/2024		\$31.09	\$19.59	\$50.68
Laborers (Class 02 - See notes)	5/1/2023		\$31.62	\$18.99	\$50.61
Laborers (Class 02 - See notes)	5/1/2024		\$32.12	\$19.59	\$51.71
Laborers (Class 03 - See notes)	5/1/2022		\$30.54	\$18.58	\$49.12
Laborers (Class 03 - See notes)	5/1/2023		\$31.24	\$19.08	\$50.32
Laborers (Class 03 - See notes)	5/6/2024		\$31.74	\$19.59	\$51.33
Laborers (Class 04 - See notes)	5/1/2022		\$32.04	\$18.58	\$50.62
Laborers (Class 04 - See notes)	5/1/2023		\$32.74	\$19.08	\$51.82
Laborers (Class 04 - See notes)	5/6/2024		\$33.24	\$19.59	\$52.83
Laborers (Class 05 - See notes)	5/1/2023		\$32.59	\$18.99	\$51.58
Laborers (Class 05 - See notes)	5/1/2024		\$33.09	\$19.59	\$52.68
Laborers (Class 06 - See notes)	5/1/2022		\$31.89	\$18.49	\$50.38
Laborers (Class 06 - See notes)	5/1/2024		\$32.44	\$19.59	\$52.03
Marble Mason	5/1/2023		\$35.07	\$19.29	\$54.36
Marble Mason	5/1/2024		\$34.62	\$21.69	\$56.31
Marble Mason	5/1/2025		\$36.57	\$21.69	\$58.26
Marble Mason	5/1/2026		\$38.52	\$21.69	\$60.21
Millwright	5/1/2020		\$36.04	\$19.31	\$55.35
Millwright	6/1/2023		\$39.21	\$22.95	\$62.16
Millwright	6/1/2024		\$41.07	\$22.95	\$64.02
Millwright	6/1/2025		\$43.00	\$22.95	\$65.95
Millwright	6/1/2026		\$44.97	\$22.95	\$67.92
Operators (Building, Class 01 - See Notes)	5/1/2023		\$42.57	\$29.24	\$71.81
Operators (Building, Class 01 - See Notes)	5/1/2024		\$43.73	\$30.08	\$73.81
Operators (Building, Class 01 - See Notes)	5/1/2025		\$44.89	\$30.92	\$75.81
Operators (Building, Class 01 - See Notes)	5/1/2026		\$46.05	\$31.76	\$77.81
Operators (Building, Class 01A - See Notes)	5/1/2023		\$44.82	\$29.90	\$74.72
Operators (Building, Class 01A - See Notes)	5/1/2024		\$45.98	\$30.74	\$76.72
Operators (Building, Class 01A - See Notes)	5/1/2025		\$47.14	\$31.58	\$78.72
Operators (Building, Class 01A - See Notes)	5/1/2026		\$48.30	\$32.42	\$80.72
Operators (Building, Class 02 - See Notes)	5/1/2023		\$42.29	\$29.15	\$71.44
Operators (Building, Class 02 - See Notes)	5/1/2024		\$43.45	\$29.99	\$73.44
Operators (Building, Class 02 - See Notes)	5/1/2025		\$44.61	\$30.83	\$75.44
Operators (Building, Class 02 - See Notes)	5/1/2026		\$45.77	\$31.67	\$77.44
Operators (Building, Class 02A - See Notes)	5/1/2023		\$44.54	\$29.82	\$74.36
Operators (Building, Class 02A - See Notes)	5/1/2024		\$45.70	\$30.66	\$76.36
Operators (Building, Class 02A - See Notes)	5/1/2025		\$46.86	\$31.50	\$78.36
Operators (Building, Class 02A - See Notes)	5/1/2026		\$48.02	\$32.34	\$80.36
Operators (Building, Class 03 - See Notes)	5/1/2023		\$39.57	\$28.34	\$67.91
Operators (Building, Class 03 - See Notes)	5/1/2024		\$40.73	\$29.18	\$69.91
Operators (Building, Class 03 - See Notes)	5/1/2025		\$41.88	\$30.03	\$71.91
Operators (Building, Class 03 - See Notes)	5/1/2026		\$43.04	\$30.87	\$73.91
Operators (Building, Class 04 - See Notes)	5/1/2023		\$38.42	\$28.02	\$66.44
Operators (Building, Class 04 - See Notes)	5/1/2024		\$39.59	\$28.85	\$68.44

Project: 24-10592 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 04 - See Notes)	5/1/2025		\$40.74	\$29.70	\$70.44
Operators (Building, Class 04 - See Notes)	5/1/2026		\$41.90	\$30.54	\$72.44
Operators (Building, Class 05 - See Notes)	5/1/2023		\$37.97	\$27.89	\$65.86
Operators (Building, Class 05 - See Notes)	5/1/2024		\$39.13	\$28.73	\$67.86
Operators (Building, Class 05 - See Notes)	5/1/2025		\$40.30	\$29.56	\$69.86
Operators (Building, Class 05 - See Notes)	5/1/2026		\$41.45	\$30.41	\$71.86
Operators (Building, Class 06 - See Notes)	5/1/2023		\$37.10	\$27.62	\$64.72
Operators (Building, Class 06 - See Notes)	5/1/2024		\$38.26	\$28.46	\$66.72
Operators (Building, Class 06 - See Notes)	5/1/2025		\$39.42	\$29.30	\$68.72
Operators (Building, Class 06 - See Notes)	5/1/2026		\$40.58	\$30.14	\$70.72
Operators (Building, Class 07A- See Notes)	5/1/2023		\$51.63	\$33.34	\$84.97
Operators (Building, Class 07A- See Notes)	5/1/2024		\$53.10	\$34.27	\$87.37
Operators (Building, Class 07A- See Notes)	5/1/2025		\$54.56	\$35.21	\$89.77
Operators (Building, Class 07A- See Notes)	5/1/2026		\$56.03	\$36.14	\$92.17
Operators (Building, Class 07B- See Notes)	5/1/2023		\$51.28	\$33.24	\$84.52
Operators (Building, Class 07B- See Notes)	5/1/2024		\$52.75	\$34.17	\$86.92
Operators (Building, Class 07B- See Notes)	5/1/2025		\$54.22	\$35.10	\$89.32
Operators (Building, Class 07B- See Notes)	5/1/2026		\$55.69	\$36.03	\$91.72
Painters Class 1 (see notes)	5/1/2023		\$29.98	\$23.28	\$53.26
Painters Class 1 (see notes)	5/1/2024		\$30.36	\$24.15	\$54.51
Painters Class 2 (see notes)	5/1/2023		\$33.58	\$23.58	\$57.16
Painters Class 3 (see notes)	5/1/2023		\$40.18	\$23.58	\$63.76
Pile Driver Divers (Building, Heavy, Highway)	1/1/2023		\$58.70	\$21.22	\$79.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2024		\$60.95	\$21.97	\$82.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2025		\$62.82	\$22.72	\$85.54
Pile Driver Divers (Building, Heavy, Highway)	1/1/2026		\$64.70	\$23.47	\$88.17
Piledrivers	1/1/2023		\$39.13	\$21.22	\$60.35
Piledrivers	1/1/2024		\$40.63	\$21.97	\$62.60
Piledrivers	1/1/2025		\$41.88	\$22.72	\$64.60
Piledrivers	1/1/2026		\$43.13	\$23.47	\$66.60
Plasterers	6/1/2021		\$36.46	\$13.00	\$49.46
Plasterers	6/1/2023		\$37.81	\$13.90	\$51.71
Plasterers	6/1/2024		\$38.46	\$14.45	\$52.91
Plumbers and Steamfitters	12/1/2022		\$47.74	\$22.32	\$70.06
Plumbers and Steamfitters	12/1/2024		\$51.49	\$24.67	\$76.16
Roofers (Composition)	5/1/2023		\$42.63	\$34.62	\$77.25
Roofers (Composition)	5/1/2024		\$44.13	\$34.77	\$78.90
Roofers (Shingle)	5/1/2020		\$29.50	\$21.25	\$50.75
Roofers (Shingle)	5/1/2023		\$32.85	\$22.10	\$54.95
Roofers (Shingle)	5/1/2024		\$34.35	\$22.20	\$56.55
Roofers (Slate & Tile)	5/1/2020		\$32.50	\$21.25	\$53.75
Roofers (Slate & Tile)	5/1/2023		\$35.85	\$22.10	\$57.95
Roofers (Slate & Tile)	5/1/2024		\$37.35	\$22.20	\$59.55
Sheet Metal Workers	5/1/2023		\$35.04	\$29.82	\$64.86

Project: 24-10592 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Sheet Metal Workers	5/1/2024		\$36.13	\$31.23	\$67.36
Sign Makers and Hangars	7/15/2022		\$30.54	\$24.35	\$54.89
Sign Makers and Hangars	7/15/2023		\$31.76	\$24.63	\$56.39
Sign Makers and Hangars	7/15/2024		\$32.32	\$25.82	\$58.14
Sprinklerfitters	4/1/2023		\$44.33	\$28.04	\$72.37
Sprinklerfitters	4/1/2024		\$46.45	\$28.62	\$75.07
Terrazzo Finisher	5/1/2023		\$35.79	\$19.25	\$55.04
Terrazzo Finisher	5/1/2024		\$35.66	\$20.76	\$56.42
Terrazzo Grinder	5/1/2023		\$36.54	\$19.25	\$55.79
Terrazzo Grinder	5/1/2024		\$36.42	\$20.76	\$57.18
Terrazzo Mechanics	5/1/2023		\$36.51	\$21.00	\$57.51
Terrazzo Mechanics	5/1/2024		\$36.44	\$22.51	\$58.95
Tile & Marble Finisher	5/1/2023		\$32.15	\$16.59	\$48.74
Tile & Marble Finisher	5/1/2024		\$32.60	\$18.09	\$50.69
Tile & Marble Finisher	5/1/2025		\$34.55	\$18.09	\$52.64
Tile & Marble Finisher	5/1/2026		\$36.50	\$18.09	\$54.59
Tile Setter	5/1/2023		\$35.07	\$19.29	\$54.36
Tile Setter	5/1/2024		\$34.62	\$21.69	\$56.31
Tile Setter	5/1/2025		\$36.57	\$21.69	\$58.26
Tile Setter	5/1/2026		\$38.52	\$21.69	\$60.21
Truckdriver class 1(see notes)	5/1/2021		\$37.72	\$0.00	\$37.72
Truckdriver class 2 (see notes)	5/1/2021		\$37.79	\$0.00	\$37.79
Window Film / Tint Installer	6/1/2019		\$24.52	\$12.08	\$36.60
Window Film / Tint Installer	6/1/2024		\$26.37	\$14.83	\$41.20

Project: 24-10592 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter	5/1/2023		\$35.32	\$19.09	\$54.41
Carpenter	5/1/2024		\$36.12	\$19.79	\$55.91
Carpenter	5/1/2025		\$36.87	\$20.49	\$57.36
Carpenter	5/1/2026		\$37.63	\$21.18	\$58.81
Carpenter Welder	5/1/2023		\$36.07	\$19.09	\$55.16
Carpenter Welder	5/1/2024		\$36.87	\$19.79	\$56.66
Carpenter Welder	5/1/2025		\$37.62	\$20.49	\$58.11
Carpenter Welder	5/1/2026		\$38.38	\$21.18	\$59.56
Carpenters - Piledriver/Welder	1/1/2023		\$36.07	\$19.09	\$55.16
Carpenters - Piledriver/Welder	1/1/2024		\$36.87	\$19.79	\$56.66
Carpenters - Piledriver/Welder	1/1/2025		\$37.62	\$20.49	\$58.11
Carpenters - Piledriver/Welder	1/1/2026		\$38.38	\$21.18	\$59.56
Cement Finishers	6/1/2016		\$32.43	\$11.35	\$43.78
Electric Lineman	8/29/2022		\$62.66	\$28.08	\$90.74
Electric Lineman	9/4/2023		\$64.68	\$29.01	\$93.69
Electric Lineman	1/1/2024		\$64.46	\$29.23	\$93.69
Electric Lineman	9/2/2024		\$66.56	\$30.17	\$96.73
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$34.01	\$31.13	\$65.14
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2023		\$36.26	\$31.38	\$67.64
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2024		\$37.26	\$32.63	\$69.89
Laborers (Class 01 - See notes)	5/1/2023		\$24.81	\$18.99	\$43.80
Laborers (Class 01 - See notes)	5/1/2024		\$25.61	\$19.49	\$45.10
Laborers (Class 02 - See notes)	5/1/2023		\$31.43	\$18.99	\$50.42
Laborers (Class 02 - See notes)	5/1/2024		\$32.23	\$19.49	\$51.72
Laborers (Class 03 - See notes)	5/1/2023		\$28.42	\$18.99	\$47.41
Laborers (Class 03 - See notes)	5/1/2024		\$29.22	\$19.49	\$48.71
Laborers (Class 04 - See notes)	5/1/2023		\$28.77	\$18.99	\$47.76
Laborers (Class 04 - See notes)	5/1/2024		\$29.57	\$19.49	\$49.06
Laborers (Class 05 - See notes)	5/1/2023		\$29.44	\$18.99	\$48.43
Laborers (Class 05 - See notes)	5/1/2024		\$30.24	\$19.49	\$49.73
Laborers (Class 06 - See notes)	5/1/2023		\$28.86	\$18.99	\$47.85
Laborers (Class 06 - See notes)	5/1/2024		\$29.66	\$19.49	\$49.15
Laborers (Class 07 - See notes)	5/1/2023		\$29.15	\$18.99	\$48.14
Laborers (Class 07 - See notes)	5/1/2024		\$29.95	\$19.49	\$49.44
Laborers (Class 08 - See notes)	5/1/2023		\$29.63	\$18.99	\$48.62
Laborers (Class 08 - See notes)	5/1/2024		\$30.43	\$19.49	\$49.92
Millwright	6/1/2023		\$41.51	\$23.33	\$64.84
Millwright	6/1/2024		\$43.46	\$23.33	\$66.79
Millwright	6/1/2025		\$45.46	\$23.33	\$68.79
Millwright	6/1/2026		\$47.52	\$23.33	\$70.85
Operators (Heavy, Class 01 - See Notes)	5/1/2023		\$41.14	\$28.82	\$69.96
Operators (Heavy, Class 01 - See Notes)	5/1/2024		\$42.30	\$29.66	\$71.96

Project: 24-10592 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Heavy, Class 01 - See Notes)	5/1/2025		\$43.46	\$30.50	\$73.96
Operators (Heavy, Class 01 - See Notes)	5/1/2026		\$44.61	\$31.35	\$75.96
Operators (Heavy, Class 01A - See Notes)	5/1/2023		\$43.39	\$29.48	\$72.87
Operators (Heavy, Class 01A - See Notes)	5/1/2024		\$44.55	\$30.32	\$74.87
Operators (Heavy, Class 01A - See Notes)	5/1/2025		\$45.71	\$31.16	\$76.87
Operators (Heavy, Class 01A - See Notes)	5/1/2026		\$46.86	\$32.01	\$78.87
Operators (Heavy, Class 02 - See Notes)	5/1/2023		\$40.86	\$28.73	\$69.59
Operators (Heavy, Class 02 - See Notes)	5/1/2024		\$42.02	\$29.57	\$71.59
Operators (Heavy, Class 02 - See Notes)	5/1/2025		\$43.18	\$30.41	\$73.59
Operators (Heavy, Class 02 - See Notes)	5/1/2026		\$44.34	\$31.25	\$75.59
Operators (Heavy, Class 02A - See Notes)	5/1/2023		\$43.11	\$29.40	\$72.51
Operators (Heavy, Class 02A - See Notes)	5/1/2024		\$44.27	\$30.24	\$74.51
Operators (Heavy, Class 02A - See Notes)	5/1/2025		\$45.43	\$31.08	\$76.51
Operators (Heavy, Class 02A - See Notes)	5/1/2026		\$46.59	\$31.92	\$78.51
Operators (Heavy, Class 03 - See Notes)	5/1/2023		\$37.95	\$27.86	\$65.81
Operators (Heavy, Class 03 - See Notes)	5/1/2024		\$39.11	\$28.70	\$67.81
Operators (Heavy, Class 03 - See Notes)	5/1/2025		\$40.26	\$29.55	\$69.81
Operators (Heavy, Class 03 - See Notes)	5/1/2026		\$41.43	\$30.38	\$71.81
Operators (Heavy, Class 04 - See Notes)	5/1/2023		\$36.80	\$27.54	\$64.34
Operators (Heavy, Class 04 - See Notes)	5/1/2024		\$37.96	\$28.38	\$66.34
Operators (Heavy, Class 04 - See Notes)	5/1/2025		\$39.12	\$29.22	\$68.34
Operators (Heavy, Class 04 - See Notes)	5/1/2026		\$40.28	\$30.06	\$70.34
Operators (Heavy, Class 05 - See Notes)	5/1/2023		\$36.35	\$27.41	\$63.76
Operators (Heavy, Class 05 - See Notes)	5/1/2024		\$37.51	\$28.25	\$65.76
Operators (Heavy, Class 05 - See Notes)	5/1/2025		\$38.67	\$29.09	\$67.76
Operators (Heavy, Class 05 - See Notes)	5/1/2026		\$39.83	\$29.93	\$69.76
Operators (Heavy, Class 06 - See Notes)	5/1/2023		\$35.48	\$27.14	\$62.62
Operators (Heavy, Class 06 - See Notes)	5/1/2024		\$36.64	\$27.98	\$64.62
Operators (Heavy, Class 06 - See Notes)	5/1/2025		\$37.80	\$28.82	\$66.62
Operators (Heavy, Class 06 - See Notes)	5/1/2026		\$38.96	\$29.66	\$68.62
Operators (Heavy, Class 07A - See Notes)	5/1/2023		\$49.93	\$32.83	\$82.76
Operators (Heavy, Class 07A - See Notes)	5/1/2024		\$51.39	\$33.77	\$85.16
Operators (Heavy, Class 07A - See Notes)	5/1/2025		\$52.85	\$34.71	\$87.56
Operators (Heavy, Class 07A - See Notes)	5/1/2026		\$54.32	\$35.64	\$89.96
Operators (Heavy, Class 07B - See Notes)	5/1/2023		\$49.58	\$32.73	\$82.31
Operators (Heavy, Class 07B - See Notes)	5/1/2024		\$51.04	\$33.67	\$84.71
Operators (Heavy, Class 07B - See Notes)	5/1/2025		\$52.51	\$34.60	\$87.11
Operators (Heavy, Class 07B - See Notes)	5/1/2026		\$53.97	\$35.54	\$89.51
Operators (Highway, Class 01 - See Notes)	5/1/2023		\$40.25	\$28.55	\$68.80
Operators (Highway, Class 01 - See Notes)	5/1/2024	_	\$41.41	\$29.39	\$70.80
Operators (Highway, Class 01 - See Notes)	5/1/2025		\$42.56	\$30.24	\$72.80
Operators (Highway, Class 01 - See Notes)	5/1/2026	_	\$43.72	\$31.08	\$74.80
Operators (Highway, Class 01a - See Notes)	5/1/2023		\$42.50	\$29.23	\$71.73
Operators (Highway, Class 01a - See Notes)	5/1/2024		\$43.66	\$30.07	\$73.73

Project: 24-10592 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Highway, Class 01a - See Notes)	5/1/2025		\$44.81	\$30.92	\$75.73
Operators (Highway, Class 01a - See Notes)	5/1/2026		\$45.97	\$31.76	\$77.73
Operators (Highway, Class 02 - See Notes)	5/1/2023		\$39.08	\$28.20	\$67.28
Operators (Highway, Class 02 - See Notes)	5/1/2024		\$40.24	\$29.04	\$69.28
Operators (Highway, Class 02 - See Notes)	5/1/2025		\$41.39	\$29.89	\$71.28
Operators (Highway, Class 02 - See Notes)	5/1/2026		\$42.55	\$30.73	\$73.28
Operators (Highway, Class 03 - See Notes)	5/1/2023		\$38.39	\$27.99	\$66.38
Operators (Highway, Class 03 - See Notes)	5/1/2024		\$39.55	\$28.83	\$68.38
Operators (Highway, Class 03 - See Notes)	5/1/2025		\$40.70	\$29.68	\$70.38
Operators (Highway, Class 03 - See Notes)	5/1/2026		\$41.87	\$30.51	\$72.38
Operators (Highway, Class 04 - See Notes)	5/1/2023		\$37.94	\$27.86	\$65.80
Operators (Highway, Class 04 - See Notes)	5/1/2024		\$39.10	\$28.70	\$67.80
Operators (Highway, Class 04 - See Notes)	5/1/2025		\$40.26	\$29.54	\$69.80
Operators (Highway, Class 04 - See Notes)	5/1/2026		\$41.41	\$30.39	\$71.80
Operators (Highway, Class 05 - See Notes)	5/1/2023		\$37.42	\$27.72	\$65.14
Operators (Highway, Class 05 - See Notes)	5/1/2024		\$38.58	\$28.56	\$67.14
Operators (Highway, Class 05 - See Notes)	5/1/2025		\$39.73	\$29.41	\$69.14
Operators (Highway, Class 05 - See Notes)	5/1/2026		\$40.89	\$30.25	\$71.14
Operators (Highway, Class 06 - See Notes)	5/1/2023		\$40.48	\$28.62	\$69.10
Operators (Highway, Class 06 - See Notes)	5/1/2024		\$41.64	\$29.46	\$71.10
Operators (Highway, Class 06 - See Notes)	5/1/2025		\$42.80	\$30.30	\$73.10
Operators (Highway, Class 06 - See Notes)	5/1/2026		\$43.95	\$31.15	\$75.10
Operators (Highway, Class 06/A - See Notes)	5/1/2023		\$42.73	\$29.28	\$72.01
Operators (Highway, Class 06/A - See Notes)	5/1/2024		\$43.89	\$30.12	\$74.01
Operators (Highway, Class 06/A - See Notes)	5/1/2025		\$45.05	\$30.96	\$76.01
Operators (Highway, Class 06/A - See Notes)	5/1/2026		\$46.21	\$31.80	\$78.01
Operators (Highway, Class 07/A - See Notes)	5/1/2023		\$48.86	\$32.51	\$81.37
Operators (Highway, Class 07/A - See Notes)	5/1/2024		\$50.32	\$33.45	\$83.77
Operators (Highway, Class 07/A - See Notes)	5/1/2025		\$51.79	\$34.38	\$86.17
Operators (Highway, Class 07/A - See Notes)	5/1/2026		\$53.25	\$35.32	\$88.57
Operators (Highway, Class 07/B - See Notes)	5/1/2023		\$47.44	\$32.10	\$79.54
Operators (Highway, Class 07/B - See Notes)	5/1/2024		\$48.91	\$33.03	\$81.94
Operators (Highway, Class 07/B - See Notes)	5/1/2025		\$50.37	\$33.97	\$84.34
Operators (Highway, Class 07/B - See Notes)	5/1/2026		\$51.84	\$34.90	\$86.74
Painters - Line Stripping	12/1/2023		\$42.10	\$27.43	\$69.53
Painters Class 2 (see notes)	5/1/2020		\$31.53	\$20.71	\$52.24
Painters Class 2 (see notes)	5/1/2024		\$34.16	\$24.75	\$58.91
Painters Class 3 (see notes)	5/1/2020		\$37.63	\$20.71	\$58.34
Painters Class 3 (see notes)	5/1/2024		\$41.01	\$24.75	\$65.76
Pile Driver Divers (Building, Heavy, Highway)	1/1/2022		\$56.40	\$20.50	\$76.90
Piledrivers	5/1/2023		\$35.32	\$19.09	\$54.41
Piledrivers	5/1/2024		\$36.12	\$19.79	\$55.91
Piledrivers	5/1/2025		\$36.87	\$20.49	\$57.36
Piledrivers	5/1/2026		\$37.63	\$21.18	\$58.81

Project: 24-10592 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2022		\$48.43	\$40.28	\$88.71
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2023		\$50.53	\$41.68	\$92.21
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2024		\$52.74	\$42.93	\$95.67
Truckdriver class 1(see notes)	5/1/2021		\$37.72	\$0.00	\$37.72
Truckdriver class 2 (see notes)	5/1/2021		\$37.79	\$0.00	\$37.79

Commonwealth of Pennsylvania Report Date: 12/16/2024

# SECTION 011000 SUMMARY

### PART 1 - GENERAL

# 1.01 WORK COVERED BY CONTRACT DOCUMENTS

Work included under this Project consists of renovations to the exterior masonry facade of the Minsi Residence Hall at East Stroudsburg University.

The renovations consist of providing all manpower, materials and equipment including man-lifts, scaffolding and necessary protections for the safe removal and replacement of displaced brick and joint work, including deteriorated steel shelfs and associated supports along designated areas of the building exterior.

# 1.02 MULTIPLE CONTRACT SUMMARY

Work for the Project shall be accomplished by Separate Prime Contractor(s) according to Pennsylvania statute. The Lead Prime Contractor shall be the General Contractor. Specific instructions for coordination and responsibilities of the Lead Prime Contractor are contained in Section 013100, Project Management and Coordination, and elsewhere throughout the Contract Documents. Work included in each Separate Prime Contract shall include, but not be limited to, the following:

A. General Construction [Contract No. 30-2107.1]

The Project Work Area entails repair and restoration of the exterior Façade under chapter 4 of the 2018 IEBC. The project does not include any work within the interior of the building. The project includes no change of construction type, use group, or egress.

- B. HVAC Construction (N/A)
- C. Plumbing Construction (N/A
- D. Electrical Construction (N/A)
- E. Work Under Other Contracts (N/A)

# 1.04 WORK SEQUENCE

Contractor shall complete work in a timely manner with work starting May 12, 2025 and to be substantially complete by August 1<sup>st</sup>, 2025.

# 1.05 SUPERINTENDENCE AND PROJECT MANAGEMENT

### A. Superintendence.

1. The competent superintendent required by Article 4.2.2 of the General Conditions may be fulfilled by, at a minimum, a working foreman. All other requirements of Article 4.2.2 shall remain in force.

2. If the Contractor holds more than one Separate Prime Contract for this Project, the Contractor may provide a single person to provide superintendence for all Separate Prime Contracts held.

# B. Project Management

- 1. The qualified project manager required by Article 4.2.3 of the General Conditions may be fulfilled by, at a minimum, a working foreman. All other requirements of Article 4.2.3 shall remain in force.
- 2. The person fulfilling this Project Management requirement may be the same person who is fulfilling the Superintendence requirement.
- 3. If the Contractor holds more than one Separate Prime Contract for this Project, the Contractor may provide a single person to provide project management for all Separate Prime Contracts held.

#### 1.06 WORK BY OWNER

A. The University will perform certain operations and/or award independent contract(s) for performance of construction-related operations at the Project site. These operations will be conducted simultaneously with the Work under this Contract. All Separate Prime Contractors are expected to cooperate fully with other independent contractors so that work on those contracts may be carried out smoothly, without interfering with, or delaying, the Work under this Contract. The following operations will either be performed by the University or under independent contracts(s):

N/A

- B. The University may undertake or award other contracts for work unrelated to this Project, but which may be at or near the site(s) of the Work under this Contract. The Contractor, other contractors, and University employees, shall cooperate with each other and shall adapt scheduling and performance of their work to reasonably accommodate each other, heeding any direction that may be provided by the University. The Contractor shall report to the University any interferences or conflicts immediately, whether committed or experienced.
- C. The University will provide the following items:

#### N/A

- 1. The Contractor shall designate the required delivery dates of University-furnished items in the Project Schedule. The University will schedule deliveries in accordance with the Project Schedule.
- 2. The University will arrange and pay for delivery of University-furnished items. The Contractor shall receive, unload, and handle University-furnished items at the site. The University and the Contractor shall jointly inspect deliveries for damage.
- 3. If, as a result of delivery, University-furnished items are damaged, defective, or missing, the University will arrange for replacement.
- 4. Once the University-furnished items are on site, the Contractor shall be responsible for protecting the items from damage, including damage from exposure to the elements and from the Contractor's operations. The Contractor shall be responsible to repair or replace items damaged once under his control.

5. The University will arrange for manufacturers' field services, and the delivery of manufacturers' warranties, operating manuals, spare parts, and special tools, as applicable, to the Contractor.

#### 1.07 WORK RESTRICTIONS

A. Existing Facilities, Infrastructure, and Occupancy.

The building will be unoccupied during construction. Contractors shall minimize use and disruption to the surrounding parking lot and walkways. Contractor will be responsible for providing barricades and signage as needed.

### B. Hazardous Materials.

- 1. There is a possibility that hazardous materials not identified in the Contract Documents may be discovered on this Project site. Should hazardous or suspicious materials be encountered, the Contractor shall immediately stop work in that area and notify the University. The University will be responsible for investigating the suspicious material, and if it is found to be hazardous, for having it removed. The University will consider an extension of time for delays related to such testing and removal if the work was impacted.
- 2. Asbestos: There is no known asbestos on this Project. All known asbestos-containing material has been removed from the building as part of an asbestos abatement project.
- 3. Mercury: All fluorescent and high-intensity discharge lamps containing mercury and which are intended for disposal shall be removed from campus and properly recycled or disposed of by the Contractor, in accordance with statutory and/or regulatory requirements.
- 4. PCBs: Ballasts found to contain PCBs and which are intended for disposal shall be removed from campus and properly recycled or disposed of by the Contractor, in accordance with statutory and/or regulatory requirements.
- 5. Lead: There is known lead paint in the construction area, The Contractor is responsible for removal in accordance with statutory and/or regulatory requirements.
- C. The general and special conditions contained herein are not all inclusive. Special conditions identified in the Technical Specifications and on the Drawings take precedence.
- D. The Contractor shall provide a reasonable individual to accept deliveries of materials and equipment and provide labor and equipment to unload delivery trucks. The University will not accept or sign for deliveries of materials or equipment to the Contractor, and the University will not handle or store materials or equipment for the Contractor.
- E. The Contractor shall make suitable prior arrangements with the University for the delivery of large equipment or materials in large vehicles to the Project site. The intent is to avoid such deliveries at time of peak commuter traffic to the University. The University will determine if other University entities, such as University Police, need to be involved.
- F. Staging and storage areas are identified on the Drawings. The Contractor may not use any other campus locations for use as staging or storage areas without prior approval of the University. Any additional storage or work areas needed for operations shall be off campus and shall be obtained and paid for by the Contractor. The Contractor is responsible for protection and safekeeping of products stored in staging and storage areas on campus. Stored products that interfere with operations of the University or other contractors shall be moved. Roofing

- materials and bulk materials, of any type and for any contractor, shall not be stored or stockpiled overnight on new or existing roofs.
- G. Loading the structure with weight that will endanger the structure is not permitted. Ductwork, conduit, ceiling systems, lighting fixtures, or any other miscellaneous equipment shall not be suspended from new or existing metal roof decks. These components shall be suspended from the structural members, or from a suspension system supported by the structural members. All concentrated loads must be approved by the University. If concentrated loads are not approved, the Separate Prime Contractor furnishing the equipment must provide acceptable means of distributing the load.
- H. The Contractor shall make a reasonable attempt to arrange its on-site work to minimize interference with normal University business activities, particularly those activities not directly related to the actual Work or the operation thereof.
- I. Contractors are authorized to work whatever hours are required to complete the Work by the specified Contract completion date. The University will normally be providing quality assurance coverage from 7:00 AM to 5:00 PM, Monday through Friday, holidays excepted. Contractors are required to notify the University in writing at least five (5) working days in advance of any work that is planned for outside of the normal coverage hours for the University. Contractors shall not perform any testing or cover-up work outside the normal coverage hours for the University without the prior written approval of the University. The University's failure to approve an expanded work-hour schedule or work on holidays shall not be grounds for a claim against the University.
- J. The Contractor shall comply with all University personnel identification and vehicle registration requirements while on the campus.
- K. Contractor employees shall park privately-owned vehicles in an area designated by the University. Contractor employee parking shall not interfere with existing and established parking requirements of the University. If employee parking is on a grassed area, the Contractor shall be responsible for restoration and re-grassing of the area at the end of the Project.
- L. The Contractor shall keep fire hydrants adjacent to the Project accessible at all times. No materials or obstructions shall be placed within twenty (20) feet of any such hydrant, or within any other distance as required by law or ordinance.
- M. The Contractor shall keep driveways and entrances servicing the campus and adjacent buildings clear and available to the University and to emergency vehicles at all times. Such areas shall not be used for parking or storage of materials. Deliveries shall be scheduled to minimize space and time requirements for storage of materials and equipment.
- N. The Contractor shall maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. The Contractor shall not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from the University.
- O. The Contractor shall provide protection for all existing roads, walkways, pavement, buildings, appurtenances, ground structures, signs, trees, landscaping, grass, etc., scheduled to remain. The Contractor shall provide means to protect such items from damage and shall repair any damage caused by its operations, at no cost to the University. The Contractor shall return the premises to like-original condition and/or to match adjacent areas that were not affected by the work, subject to approval by the University. Any restoration of the site shall include replacement of landscaping with "like" plants of the same species, size, and shape. Grass remediation shall be by "sod" method rather than seeding. All work shall be approved by the University.

- P. At the end of each day, the Contractor shall clean the Project site of scraps, packaging containers, and other trash, and have it removed from the campus. This shall include waste and packaging that has blown outside of the Project site.
- Q. Smoking and other use of tobacco products are prohibited in University buildings, including buildings under construction. Contractors and their employees working on University property are prohibited from smoking in University buildings.
- R. Alcoholic beverages and controlled substances shall not be carried, consumed, or stored on University property.
- S. Open fires or burning are not permitted on University property.
- T. Burying of waste materials on site, to include materials from clearing and grubbing operations, is prohibited without written permission of the University. The Contractor shall remove any such material from the Project site and recycle or dispose of it in a legal manner.
- U. The Contractor shall not plan for any blasting operations without prior written approval of the University.
- V. The Contractor is responsible for the behavior of its employees and shall immediately remove from the site any employee engaging in racial or sexual harassment, whether by work or deed. This includes "catcalls" and inappropriate language. The University will require any Contractor's, subcontractor's, or supplier's personnel to be removed from the job site in the event of misconduct or improper interaction with University students or staff.
- W. Regardless of the proximate cause, in the event of any damage occurring to University or private property by any Contractor activity during the life of the contract, the Contractor shall promptly advise the University and participate in a joint assessment of the damage with University personnel. It is essential that the Contractor take all actions necessary to avoid claims by third parties.
- X. The University shall have first right of refusal on all removed equipment. Existing pieces of equipment and materials that are to remain the property of the University will be tagged by the University prior to the start of work. Such items shall be moved and/or stored by the Contractor where directed by the University. Equipment shall be stored as complete units with all associated accessories and auxiliary equipment. Equipment shall be disconnected and carefully removed and shall be transported to the storage areas as directed. Equipment shall be stored in a neat and workmanlike manner, tagged, and identified for future use.

# 1.08 WORK RESTRICTIONS, EXISTING BUILDINGS

- A. The University will maintain activities, operations, and normal office hours in the building during the course of the Work.
- B. If the Contractor is provided keys (or an access swipe card) to the building or portion of the building, the Contractor shall be subject to the University's regulations and policies on key control and access.
- C. Upon completion of any portion of Work related to this Contract, the Contractor shall ensure that the building, other than any improvements and changes inherent in the Work, are reasonably maintained and/or are returned to their prior condition.

- D. The Contractor shall protect the building and its occupants during the Work, taking all necessary precautions. The Contractor shall make all necessary provisions to keep the operational part of the building safe, weather tight, and dust free at all times, and shall cooperate to keep noise, dirt, and other interferences to a minimum. The Contractor shall repair damage caused by construction operations.
- E. The Lead Prime Contractor shall take all necessary precautions to maintain a weather tight envelope during sequence of operations on alteration work of the existing building.
- F. Existing Elevators may be used by the Contractor if given permission.
- G. All existing finishes to remain, including, but not limited to, floor coverings, wall finishes, ceilings, fixtures, etc., shall be adequately protected by the Contractor. Any damage to such finishes shall be repaired by the Contractor causing the damage, at no cost to the University.
- H. The Contractor shall not use any University property, such as desks, beds, chairs, etc., as ladders, work benches, etc., in performing the Work. The Contractor shall be responsible for protection from damage or loss of any furniture, furnishings, or equipment remaining in the building.
- I. The Contractor shall keep public areas, such as hallways, stairs, elevator, lobbies, and toilet rooms, free from accumulation of waste, rubbish, or construction debris.
- J. Use of Restrooms, Sanitary Facilities, and/or Cleanup Facilities: Section 015000, Temporary Facilities and Controls, outlines requirements for Temporary Sanitary Facilities. If use of existing University restrooms, sanitary facilities, and/or cleanup facilities is authorized, misuse of facilities, such as clogging lines, unkempt conditions, failure to clean up, etc., will result in the withdrawal of privileges and back charges for damages.
- K. The Contractor shall cooperate with the University, and with those in authority for the existing building, to prevent the entrance and exit of all workers and/or others whose presence is forbidden or undesirable.

# 1.09 PROJECT UTILITY SOURCES

- A. The location of existing utilities and equipment is shown on the Drawings in an approximate way only and has not been independently verified by the University. The Contractor shall determine the location of all utilities and equipment, including those overhead and underground, before commencing Work, and shall take all necessary precautions to prevent injury or damage during the performance of the Work. The Contractor agrees to be fully responsible for any and all items at no cost to the System.
- B. The Contractor, when performing excavation or demolition work, shall fully comply with the requirements of P.L. 852, Act 287, December 10, 1974, as amended, relative to protection of underground utilities, which shall include, but not be limited to, the following actions:
  - 1. Ascertain the approximate location and type of utility lines at the site by inspecting drawings or by obtaining a list of utility companies' lines on the site from the county Recorder of Deeds and then contacting the utility companies.
  - 2. A minimum of five (5) working days before excavation or demolition, request from the utility companies the steps contractors should take to avoid any damage.

- 3. Inform the responsible supervisor or foreman and each equipment operator of the information obtained in 1. and 2. above.
- 4. Report to the utility company and the University any damage to a utility line made or discovered in the course of the work.
- 5. Alert the University and occupants of premises as to any emergency created or discovered in the course of the work.
- 6. Provisions of 1., 2., and 3. above do not apply in an emergency. An emergency is any condition constituting a clear and present danger to life or property by escaping gas, exposed wires, or other utility line breaks or defects.
- C. The Contractor shall locate, identify, shut-off, and disconnect utility services that are indicated for removal or replacement. The Contractor shall also locate and identify utility services that are not indicated for removal or replacement. If the utility services that are not indicated for removal or replacement must be shut down during construction, the Contractor shall provide bypass connections, as necessary, to maintain continuity of service to occupied areas of buildings and the campus. All switching, securing, and disconnection of University utility services shall be performed in the presence of a knowledgeable University technician or utility representative.
- D. During excavation around underground utilities, when the Contractor reaches a point approximately three feet from the estimated location of any underground utility, machine excavation shall be stopped and hand excavation shall be used to uncover the utility line. In the case of utilities as shallow as 12 inches below the surface, hand digging shall begin at the surface or immediately below any pavement. The Contractor is liable for the repair of any utility lines cut, broken, or otherwise damaged, at no additional cost to the University.
- E. If a utility line is broken or damaged, or if service is interrupted in any way, the Contractor must immediately notify the University (or the Campus Police outside of normal working hours) and the appropriate utility company. The Contractor shall take immediate action to restore the utility to full service.
- F. For any planned utility service interruptions, the Contractor shall furnish a request to the University for approval at least five (5) working days in advance, or as specified by the University. The request shall identify the affected buildings and the duration of the planned outage. The University will coordinate with affected tenants and customers, as applicable. If the discontinued service is due to any emergency breakdown, the Contractor shall notify the University as soon as possible, and the University will notify those affected tenants and customers, as applicable. Power outages that involve portions of buildings may have to be scheduled for off-hours or weekends.

# 1.10 PROJECT PHOTOGRAPHS

- A. Each Separate Prime Contractor, at its own cost and expense, and prior to beginning any Work, shall furnish photographs or video showing the pre-existing conditions upon which its Work will be constructed. The photographs or video shall include the actual work site and the surrounding areas, and the specific locations or subject matter of the photographs or video shall be coordinated with the University.
- B. The date/time and a description of each photograph and video shall be provided.

# 1.11 INDUSTRY STANDARDS

- A. Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract. Such standards are made a part of the Contract by reference.
- B. Where the date of issue of a referenced standard is not specified, standards in effect as of date of Contract shall be in force.
- C. The quantity or quality levels shown or specified shall be the minimum and/or maximum provided or performed. The actual installation may comply exactly with the minimum or exceed the minimum, within reasonable limits, if not detrimental to the Work. Uncertainties should be referred to the University for a decision before proceeding.
- D. If two or more specified standards provide differing or conflicting minimum and/or maximum levels of quantity or quality, the University shall be consulted for a decision as to the differing or conflicting levels before proceeding.
- E. Where copies of standards are needed for performance of the Work, the Contractor shall obtain copies directly from the publication source. Although copies of standards needed for enforcement of requirements may be included as part of required submittals, the University reserves the right to require the Contractor to submit additional copies, as necessary, for enforcement of requirements.
- F. Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Technical Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or entity applicable to the context of the provision.

### 1.12 DISSEMINATION OF PLANS AND SPECS

Unless otherwise specified in the Contract Documents, the successful bidder Contractor, upon Contract award, will be furnished, free of charge, five (5) complete sets of drawings and specifications. If additional sets are required, the Contractor shall reimburse the System for the cost of the additional sets.

1.13 ADDITIONAL CONTRACT AND CONTRACTOR REQUIREMENTS

(Not Used)

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

**END OF SECTION 011000** 

# SECTION 012200 UNIT PRICES

#### PART 1 - GENERAL

#### 1.01 DEFINITIONS

- A. Unit Price: An amount proposed by a bidder as a price per unit of measurement for a material or service.
- B. Estimated Quantity: The anticipated amount of work in the units of measurement for a material or service.
- C. Extended Price: The arithmetic product of the Unit Price and the Estimated Quantity.
- D. Unit Price Schedule: A portion of the Bid Form that includes Unit Prices for Estimated Quantities of work for materials or services, and Extended Prices.

# 1.02 PROCEDURES

- A. The purpose of unit prices is to establish prices for work for which the specific quantity is not known at the time of bid.
- B. A unit price shall include all costs for material, labor, equipment, overhead, insurance, taxes, delivery fees, and any other costs associated with the work, as well as profit.
- C. There are two types of unit prices.
  - 1. A unit price may be for work fully-anticipated to be part of the contract, but for which the actual quantity is not known at the time of bid. This type of unit price has an estimated quantity of one (1) or more. The estimated quantity represents the University's best estimate of the amount of that particular work to be required. The Extended Price will be included as part of bid evaluation, and the Extended Price will be part of the contract price at time of contract award. This type of unit price also establishes a basis for payment, and a basis for equitable adjustment to the contract price in the event that the actual quantity of work is different than the estimated quantity of work.
  - 2. A unit price may be for work not necessarily anticipated to be part of the contract, but which may be required during the contract. This type of unit price is based on a quantity of one (1), or a quantity that represents a commonly-accepted base quantity used in purchasing or installing that item if a quantity of one (1) is very small, and this type of unit price will not have an Extended Price. This unit price will not be included as part of bid evaluation, and this unit price will not be a part of the contract price at time of award. This type of unit price establishes a basis for equitable adjustment to the contract price in the event that the work is required. Unit prices of this type will be individually or wholly accepted or rejected at time of award.
- D. For Unit Prices identified in paragraph 1.02 C. 1. above, the following apply.
  - 1. If on the bid form submitted by the Contractor there is a discrepancy in correlation between a unit price and an extended price, the unit price shall govern.
  - 2. If the actual quantity required during the contract is different from the estimated quantity, a change in the contract price shall be executed. The change to the contract may include an increase or decrease in the contract time, if appropriate. If the difference between the actual

- and estimated quantities is significant enough such that the unit price no longer represents a fair and reasonable price for the actual quantity, an adjustment to the unit price may be negotiated upon request of either party.
- 3. The Contractor will be paid for unit price work on the basis of actual measured quantities of work satisfactorily performed. Quantities of work different than the estimated quantity shall be ordered in writing by the University.
- E. For Unit Prices identified in paragraph 1.02 C. 2. above, the following apply.
  - 1. Although the unit price is based on an estimated quantity of one (1), or on a commonly-accepted base quantity, the actual work may involve significantly more units.
  - 2. If the work is required, a change to the contract price shall be executed. The change to the contract price shall be established by the unit price, if accepted, and the actual quantity. For any unit price work for which there is not an accepted unit price, that unit price shall be negotiated prior to or at the time of the change order. The change to the contract may include an increase or decrease in the contract time, if appropriate.
  - 3. The Contractor will be paid for unit price work on the basis of actual measured quantities of work ordered in writing by the University and satisfactorily performed.
- F. In all cases, the following apply.
  - 1. The University reserves the right to reject the Contractor's measurement of work associated with unit priced work, and may have the work measured by an independent agent acceptable to the Contractor at the University's expense.
  - 2. Refer to Technical Specification sections for methods of measurement and payment for unit priced work, if applicable.
- 1.03 A Unit Price Schedule for this Contract is included as an attachment to this Section.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 012200

Attachment: Unit Price Schedule

# Unit Price Schedule

For the following, the Contractor proposes to furnish all labor, material, and equipment to perform the work, complete as described in the Contract documents, at the unit prices quoted in the bid proposal. The Contractor understands that the quantities are estimates and approximate, and are presented for the purpose of determining the total base bid and evaluating bids. The Contractor will be paid for unit price work on the basis of actual measured quantities of work satisfactorily performed. Quantities of work different than the estimated quantity shall be ordered in writing by the University.

Item <u>No.</u>	Description	Estimated <u>Quantity</u>	<u>Units</u>
1	Additional brick replacement	10	SF
	Detailed Description: Price shall include in the Drawings.	e the complete in	stallation of brick replacement as indicated
2	Additional brick pointing	10	LF
	Detailed Description: Price shall includ the Drawings.	e the complete i	installation of brick pointing as indicated in

# SECTION 012300 ALTERNATES

#### PART 1 - GENERAL

# 1.01 DESCRIPTION

A Bid Alternate is a separately-priced optional scope of work that appears on the Bid Form and may or may not be included in the Contract when the Contract is awarded.

# 1.02 PROCEDURES

- A. This section identifies each Bid Alternate by number, and describes the basic scope of work for that Bid Alternate. Portions of the Specifications stipulate pertinent requirements for products and methods for the work under each Bid Alternate.
- B. The bid price for each Bid Alternate shall be inclusive of all costs, to include for labor, material, equipment, supervision, overhead, profit, and bond, in connection with the work described for that Bid Alternate.
- C. Prices for Bid Alternate(s) may be added to the Base Bid to arrive at a total Contract Sum and may be used in determining the ranking of the bids from lowest to highest amounts.
- D. Bid Alternates shall be independent of each other, unless otherwise specified.
- E. The System may accept any or all of the Bid Alternates in any combination with the Base Bid. The System reserves the right to accept or reject any or all Bid Alternates.
- F. Bid Alternates may be awarded as a part of the Contract only at the time that the Contract is awarded. After award of the Contract, work representing those scopes of work in Bid Alternates may added by change order only.
- G. All work under Bid Alternates shall conform to the Contract Documents. The Contractor also shall coordinate pertinent related work and modify surrounding work as required to properly integrate the work of any awarded Bid Alternate, and to provide the complete construction required by the Contract.

# 1.03 BID ALTERNATES FOR THIS CONTRACT

(Not Used)

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 012300

# **SECTION 012600**

# **CONTRACT MODIFICATION PROCEDURES**

#### PART 1 - GENERAL

#### 1.01 CONTRACT CHANGE ORDERS

Changes to the Work, consisting of additions, deletions, or other revisions within the general scope of the Contract, involving an adjustment to the contract price and/or the contract time, will be issued on the System's Construction Change Order Form, or on another form acceptable to, or prescribed by, the University.

# 1.02 CHANGE ORDER PROCEDURES

- A. Changes may be proposed or directed by the University. In doing so, the University will provide to the Contractor a detailed description of the proposed change and supplemental or revised drawings and specifications, as necessary. The University also will request from the Contractor a proposal for any change in the contract price and time. Unless otherwise indicated, the Contractor shall have seven (7) days from receipt of the University's request to submit his proposal for price and time.
- B. Changes may be proposed or requested by the Contractor. If the Contractor encounters a condition or situation which he believes requires adjustment to the contract price or time, he may notify the University and submit a recommended detailed description of the proposed change. The Contractor shall also submit a proposal for change in the contract price and time. The Contractor's notification and proposal shall be submitted within seven (7) days of encountering the condition or situation. Unless otherwise requested, the University will have seven (7) days from receipt of the Contractor's request to respond, by either accepting the request and initiating a Change Order, rejecting the request and stating the reasons for such rejection, or revising the proposed change and requesting from the Contractor a proposal for that revised change.
- C. All Change Orders shall address contract price, the contract time, and impacts.
- D. All Change Orders shall contain a release statement, with both parties waiving any and all future claims relative to price, time, and impacts relating to the Change Order and work under it, unless otherwise agreed upon by the parties, in which case the Change Order shall contain a statement defining any waivers and/or stipulations.
- E. Change Orders will be signed by the Contractor first, and then will be signed by the Contracting Officer, or by the Contracting Officer's authorized representative.
- F. When a Change Order is sent to the Contractor to sign, the Contractor shall sign and return it to the University within seven (7) days.
- G. A Change Order shall not be effective until signed by the Contracting Officer or their authorized representative. The Contractor should not stop work in progress, or initiate work on a change, until a Change Order is signed by the Contracting Officer or their authorized representative.
- H. The signature of the Contracting Officer or their authorized representative on the Change Order constitutes a notice to proceed, unless the Change Order designates otherwise.

# 1.03 CONTRACTOR PROPOSALS

A. Any proposal submitted by the Contractor in relation to a Change Order shall address change in

the contract price, change in the contract time, and any impacts.

B. Unless the price is properly covered in the Unit Price Schedule or as an Item in the Schedule of Values, the Contractor's proposal shall adequately document and address in detail the costs of labor, materials, equipment, overhead, profit, bond, and any other costs associated with the change. The proposal shall be broken down to contain separate sections detailing labor, materials, equipment, and subcontractors.

#### 1. Labor.

- a. For each labor classification listed, the breakdown shall include the classification description, the number of workers in that classification, the total labor hours (H) for all workers in that classification, the hourly base wage rate (BR) for each classification, the hourly total wage rate (WR) for each classification, the base wage rate cost (H x BR) for each classification, and the total wage rate cost (H x WR) for each classification.
- b. The hourly base wage rate (BR) is defined as the rate of wages paid by the employer directly to the employee. The hourly total wage rate (WR) is defined as the total rate of wages paid by the employer including wages paid on behalf of the employee. It is acknowledged that in certain situations, the base wage rate (BR) and the total wage rate (WR) may be equivalent.
- c. The breakdown shall also include the total of all base wage rate costs for all classifications (TBR), and the total of all total wage rate costs for all classifications (TWR).
- d. The Contractor may include a labor burden markup. Labor burden may include Social Security, Medicare, Federal unemployment insurance, state unemployment insurance, workmen's compensation insurance, and public liability insurance, as appropriate. Labor burden shall be calculated on the total of all of the base wage rate costs (TBR), and not on the total of all of the total wage rate costs (TWR).
- e. The total of all of the total wage rate costs (TWR), plus the labor burden amount, is the pre-markup cost total for labor.

# 2. Materials.

- a. For each material item used, the breakdown shall include the material description, the unit used to detail the quantity, the quantity showing the total number of units, the unit cost, and the total cost for that individual material item.
- b. State sales taxes, in accordance with the provisions of PA Act 45 of 1998, may be included with applicable materials items.
- c. Any freight charges for specific materials listed shall be included in the unit cost for that material. The University will not acknowledge or honor any separate line items for freight charges.
- d. The breakdown shall also include the total of all total costs for all individual material items. This total is the pre-markup cost total for materials.

# 3. Equipment.

a. For each type of equipment used, the breakdown shall include the description of that type of equipment, the quantity of that type of equipment, the duration (hours, days, etc.) of work for that type of equipment, the rental rate for that type of equipment for a unit of the duration, and the total cost for that type of equipment.

- b. State sales taxes paid on rental equipment may be included, if documented.
- c. The breakdown shall also include the total of all total costs for all individual types of equipment. This total is the pre-markup cost total for equipment.
- d. The University expects the Contractor to procure/provide the most economical rental rate available over the duration of the work performed.
- e. The University will not pay equipment costs for any piece of equipment not specifically identified, or for any tools, such as hand tools, used in the everyday performance of work.
- 4. Subcontractors' proposals supporting the Contractor's proposal shall contain similar detail. In some cases, a subcontractor's lump sum cost quotation may be acceptable, if it appears on the subcontractor's letterhead and contains a detailed description of the scope of work it represents.

# 5. Markups.

- a. Standard Markups. For Contracts up to \$6,000,000, the Contractor will be allowed maximum markups (combined overhead and profit) for Change Orders per the following:
  - i. 15% on labor costs (see 1.03 B. 1.)
  - ii. 10% on materials costs (see 1.03 B. 2.)
  - iii. 10% on equipment costs (see 1.03 B. 3.)
  - iv. 10% on subcontractor costs (see 1.03 B. 4.)
- b. Negotiated Markup. For Contracts exceeding \$6,000,000, the University may elect to use the following procedure.
  - i. The Contractor shall submit information supporting a general and administrative overhead rate, which, when accepted by the University, shall be used for all Change Orders.
  - ii. Profit shall be negotiated for each Change Order, with a maximum of 6% for Change Orders involving significant in-house costs, difficult work, and/or higher risk, and a minimum of 3% for Change Orders involving primarily subcontracted work, easy work, and/or low-risk work. The final determination of profit shall be at the sole discretion of the University.
  - iii. Separate overhead and profit percent markup calculations shall be sequential, in that order.
  - iv. In any event, the total/cumulative markup shall not exceed the markups identified in 1.03 B.5.a.
  - v. The Contractor must use the negotiated markup method for all cost components (labor, materials, equipment, and subcontractors). The Contractor may not use a mix of the standard markup and the negotiated markup on different cost components.
- c. Overhead markups shall represent general and administrative overhead costs, and

shall not include general conditions costs.

- d. Project management shall be part of general and administrative overhead costs. Project management hours shall not be itemized on Change Orders. However, on significant Change Orders, a limited number of project management hours may be negotiated.
- e. The method of application of markups shall be consistent for all Change Orders throughout the duration of the Contract.

#### 6. Bond.

- a. A markup for bond will not be applied to each individual Change Order.
- b. After Substantial Completion, and prior to Final Payment, the Contractor may submit for the total marginal bond cost accumulated for the entire Contract. Submission shall be in the form of an invoice from the surety identifying the actual marginal bond cost being paid to the surety and the basis for that cost.
- C. The Contractor's proposal shall address contract time. If the proposal includes a request for a change in the contract time, the proposal shall adequately address in detail the Project Schedule, and how the change to the Project Schedule impacts the contract time.
- D. The Contractor's proposal shall address other impacts and impact costs. If the proposal includes a request for other impacts and impact costs, the proposal shall adequately address, in detail, those impacts and impact costs.

#### 1.04 CONSTRUCTION CHANGE DIRECTIVES

- A. When the University and the Contractor are not in total agreement on the terms of a Change Order, or when the amount or extent of the work related to the Change Order is not known, the Contracting Officer may issue a Construction Change Directive, directing the Contractor to proceed with a change in the work, for subsequent inclusion in a Change Order.
- B. The Construction Change Directive will be issued on the System's Construction Change Order Form, or on another form acceptable to, or prescribed by, the University. The Construction Change Directive will be signed by the Contracting Officer, and will not require acceptance, or a signature, by the Contractor. A Construction Change Directive shall not be effective until signed by the Contracting Officer. The Contracting Officer's signature on the Construction Change Directive constitutes a notice to proceed, unless the Construction Change Directive designates otherwise.
- C. The Construction Change Directive will contain a complete description of the change in the work, or of the known work, and will designate the method to be followed to determine the final change in the contract price, contract time, and/or impacts. The Construction Change Directive will also set a schedule and/or a time frame for the required actions to work toward, and achieve, that determination of final change in price, time, and/or impacts.
- D. The Construction Change Directive will designate a not-to-exceed cost for work related to the Construction Change Directive. The Contractor shall monitor his costs of doing the work, and, before he exceeds the not-to-exceed cost, inform the University of the anticipated date that he will exceed this cost if he continues work. The Contractor shall also inform the University of how much more he anticipates it will cost to complete the work. If the University concurs that the Contractor may properly incur costs related to the work that exceeds the designated not-to-exceed cost, the Contracting Officer will either initiate a Change Order to incorporate the final price of the work, issue a subsequent Construction Change Directive to increase the not-to-

exceed cost, or issue a directive to stop the work.

- E. The Contractor shall be required to maintain and submit to the University detailed documentation supporting the labor, material, and equipment used related to the Construction Change Directive. The Contractor may be required to document labor, material, and equipment used on a form or in a format prescribed by the University. When performing work under a Construction Change Directive, the Contractor is expected to prosecute the work in an expeditious and efficient manner, and the University may disallow any costs that the University determines are not reasonable and/or not necessary.
- F. When the work related to the Construction Change Directive is complete, or when the amount or extent of the work related to the Construction Change Directive is known, the University and the Contractor shall agree to the actual cost of the work, and a Change Order shall be issued that addresses any final change in the contract price, time, and/or impacts.

#### 1.05 ADDITIONAL CONSIDERATIONS

- A. For Change Orders involving Work that is identified in the Unit Price Schedule or as an Item in the Schedule of Values, the pricing in the Unit Price Schedule or in the Schedule of Values should be used as the basis for the Change Order pricing. If that pricing does not represent a fair and reasonable price, detailed cost and pricing information shall be used to establish a fair and reasonable Change Order price.
- B. If the Schedule of Values includes an Item for General Conditions, the following shall apply.
  - 1. For a Change Order that includes a time extension, and if the Contractor is due compensation for that time extension, the basis for that compensation shall normally be based on the pricing of that Item for General Conditions.
  - 2. For a Change Order that does not include a time extension, any individual cost included in that Item for General Conditions shall not be an itemized cost in the Change Order.
- C. For a Change Order that results in an adjustment to the contract price that is a credit to the University, the following shall apply.
  - 1. The Change Order pricing shall be based on the difference in cost to the Contractor. All applicable costs of materials, labor, equipment, delivery, taxes, and other associated direct costs shall be considered.
  - 2. Standard markups for overhead and profit shall be included in the Change Order pricing, considering the following:
    - a. If the credit arises from changed work or a minor deletion of work, the Contractor shall not be entitled to lost overhead or profit.
    - b. If the credit arises from a major deletion of work, the Contractor shall be entitled to lost overhead, but not lost profit.
  - 3. The Change Order shall consider contract time, and specifically any reduction in contract time, if applicable. If the Contract time is reduced, the Change Order shall include a credit based on the Item for General Conditions on the Schedule of Values.
  - 4. The Change Order shall consider other impacts, if applicable, whether positive or adverse to the Contractor.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 012600

# **SECTION 012900**

#### **PAYMENT PROCEDURES**

#### PART 1 - GENERAL

### 1.01 SUPPLEMENTAL INSTRUCTIONS

While this Section shall govern, the Contractor shall comply with supplemental administrative procedures which may be issued by the University at the Pre-Construction Conference.

# 1.02 SCHEDULE OF VALUES

- A. Each Contractor shall establish a detailed breakdown of the costs indicating a schedule of quantities and values for the items of work included in his Contract. This detailed breakdown of the costs shall be his Schedule of Values. The Schedule of Values shall be coordinated with the Construction Schedule, subcontractors and suppliers, the Application for Payment form, and other required administrative schedules and forms.
- B. The Schedule of Values shall use the format provided at the end of this Section, or another format acceptable to the University. The listing of Technical Specifications in the Project Manual Table of Contents may be used as a guide to establish the Items for the Schedule of Values.
  - 1. The Contract Price should be broken down into components represented by Items (Columns: Item Number and Item Description) in sufficient detail to facilitate evaluation of progress for progress reports and Applications for Payment. Principal subcontract amounts should be broken down into several Items. Each Item should be complete including its total cost and proportionate share of general and administrative overhead and profit. All dollar amounts should be rounded to the nearest whole dollar. The total of all the Items (Column: Extended Prices) should equal the Contract price.
  - 2. The Contractor may include his initial cost of bonds as a separate Item. The basis for this Item shall be in the form of an invoice from the surety identifying the bond cost being paid.
  - 3. The Contractor may include mobilization costs as a separate Item. Mobilization costs should include those costs required for establishment of the field construction operations, but not including costs for the continued operation of the field construction operations for the duration of the project. For Contracts of \$6,000,000 or less, the Contractor may include mobilization costs of up to three-quarters of a percent (0.75%) of the contract price at award. For Contracts exceeding \$6,000,000, the Contractor may propose mobilization costs in excess of \$45,000, but the final amount shall be determined by negotiation with the University before submission of the Schedule of Values for approval. Contract duration should also be a consideration in negotiation of mobilization costs.

Mobilization costs, if included on the Schedule of Values, may include, as appropriate:

- a. Setup of field offices/trailers and storage buildings/facilities
- b. Setup/hookup of power, telephone, and other utilities and services for the offices/trailers and the site
- Setup/hookup of temporary power, water, and other utilities and services required for construction
- d. Installation of fencing, construction fencing, gates, and other protective and demarking facilities
- e. Installation of access routes, parking, and storage facilities
- f. Installation of signs, postings, and traffic control
- g. Site survey, to include establishing construction baselines and benchmarks

- h. Acquisition of safety and health general protective equipment for the workforce and the general public, to include protective facilities
- i. Building permits and other permits
- j. Other appropriate costs
- 4. General conditions costs, commonly called field office overhead, and which represent the cost of continued operation of the field construction site for the duration of the project, shall be included as a separate Item, per the following stipulations.
  - a. For Contracts of \$1,000,000 or less, the Contractor may choose to include a separate ltem for general conditions costs. This Item may be up to four percent (4%) of the contract price at award. If the Contractor chooses to not include general conditions costs as a separate Item, such costs shall be included at a pro rata share in all other Items.
  - b. For Contracts between \$1,000,000 and \$6,000,000, with a Contract duration of one hundred twenty (120) days or less, the Contractor shall include a separate Item for general conditions costs. This Item may be up to four percent (4%) of the contract price at award.
  - c. For Contracts between \$1,000,000 and \$6,000,000, with a Contract duration of greater than one hundred twenty (120) days, the Contractor shall include a separate Item for general conditions costs. This Item may be up to four percent (4%) of the contract price at award. The Contractor may propose this Item to be in excess of four percent (4%), but in that case the final amount shall be determined by negotiation with the University before submission of the Schedule of Values for approval.
  - d. For Contracts of \$6,000,000 or more, the Contractor shall include a separate Item for general conditions costs. This Item may be up to four percent (4%) of the contract price at award. The Contractor may propose this Item to be in excess of four percent (4%), but in that case the final amount shall be determined by negotiation with the University before submission of the Schedule of Values for approval. Contract duration should also be a consideration in negotiation of general conditions costs.

General conditions costs may include, as appropriate:

- a. Salaries of onsite management personnel and other personnel not assigned to any specific Item(s) of work and not paid from general and administrative overhead
- b. Cost of vehicles and equipment not assigned to any specific Item(s) of work
- c. Rental of field offices/trailers and storage buildings/facilities
- d. Cost of power, telephone, and other utilities and services for the offices/ trailers and the site
- e. Cost of temporary power, water, and other utilities and services required for construction
- f. Periodic and ongoing maintenance of fencing, construction fencing, gates, and other protective and demarking facilities
- g. Periodic and ongoing maintenance of access routes, parking, and storage facilities
- h. Periodic and ongoing maintenance of signs, postings, and traffic control
- Periodic and ongoing safety and health activities for the workforce and the general public, to include protective facilities
- j. Periodic and ongoing maintenance of erosion control, dust control, and environmental protection
- k. Other appropriate costs
- 5. If the Contractor includes mobilization costs (paragraph 1.02 B. 3.) as a separate Item, the Contractor shall also include demobilization costs as a separate Item. However, the Contractor may include demobilization costs as a separate Item even if mobilization costs are not included. Demobilization costs may include those costs required for deestablishment, discontinuation, and removal of the field construction operations.

Demobilization costs may include, as appropriate, costs similar to those categories identified in paragraph 1.02 B. 3. above. Demobilization costs shall be the same amount as mobilization costs; however, the contractor may propose lower demobilization costs, with the final amount being determined by negotiation with the University.

- 6. The Contractor shall include separate Items, or a single composite Item, for contract closeout requirements, as applicable to the Contract. Contract closeout requirements include project record documents, warranties, operations and maintenance data, spare parts and attic stock, and final cleanup.
- C. The general and administrative overhead identified in paragraph 1.02 B. 1. and the general conditions costs identified in paragraph 1.02 B. 4. should represent distinct and different costs. The Contractor may choose to include his general conditions costs as a part of the overhead included in paragraph 1.02 B. 1., but in that case he will have no general conditions costs in his Schedule of Values. If used, this alternate accounting methodology shall be used throughout the duration of the Contract, and shall be carried over into change order pricing.
- D. The Contractor shall submit his proposed Schedule of Values to the University prior to or at the Pre-Construction Conference. Once approved by the University, the Schedule of Values shall be used as basis for payment with Applications for Payment.

# 1.03 PROGRESS PAYMENT PROCEDURES

- A. Each Application for Payment shall be consistent with previous applications and payments as certified and paid by the University. Entries and data on the Application for Payment shall match data on the Schedule of Values and the Construction Schedule.
- B. The schedule of periodic payments and the specific dates and time frames relative to Applications for Payment will be provided by the University at the Pre-Construction Conference. Payments will be made not more frequently than monthly.
- C. The Contractor shall use AIA Documents G702 and G703, Application and Certificate for Payment, or another form acceptable to or prescribed by the University.
- D. Applications for Payment shall be submitted in the manner and format, to the person or address, and in the number of copies specified by the University at the Pre-Construction Conference.
- E. Each Application for Payment shall be signed by a person authorized to sign official Contract documents on behalf of the Contractor.
- F. Applications for Payment shall incorporate fully-executed Change Orders and Construction Change Directives issued prior to the last day of the period covered by the Application for Payment.
- G. If the University erroneously overpaid on an item on a previous Application for Payment, the University reserves the right to correct the overpayment on subsequent Applications for Payment.
- H. An Application for Payment will be processed for payment if it is a proper invoice. An Application for Payment is a proper invoice if it contains: itemization and substantiation of the amount requested, and certification. Certification shall be a signed statement by the Contractor acknowledging that the work covered by the application for payment has been completed in accordance with the contract, that all amounts have been paid to subcontractors and suppliers for work for which previous payments were made by the University, and that the current requested payment is now due. All other requirements, such as deficiencies that arise from statutorily-required submissions, deficiencies that arise from System, University, or contractually-required submissions, and deficiencies that arise from other contractual

General Requirements for 71-FA-8.1 Contract No. ESU 30-2107

- requirements, will not stop an application for payment from being processed, but instead, will result in withholding of money from the payment.
- I. If the University determines that the Application for Payment is not a proper invoice, the University will notify the Contractor as soon as possible, but no later than seven (7) days from receipt of the Application for Payment, that it is not a proper invoice and as to the reasons why. In this case the Contractor shall be required to submit a new Application for Payment.
- J. The Initial Application for Payment, the Application for Payment at Substantial Completion, and the Final Application for Payment involve additional requirements, as outlined in paragraphs 1.04, 1.05, and 1.06 below.

# 1.04 INITIAL PROGRESS PAYMENT PROCEDURES

- A. The University may reject the Initial Application for Payment if the following items have not been submitted or completed by the Contractor prior to or in conjunction with the Initial Application for Payment.
  - 1. Approved Schedule of Values
  - 2. List of Subcontractors, Principal Suppliers, and Fabricators
- B. The University may reject an Application for Payment if the Preliminary Project Schedule or the Initial Project Schedule, in accordance with Specification Section 013200, Construction Progress Documentation, are due by the date of that Application for Payment but have not been submitted.

#### 1.05 PROGRESS PAYMENT PROCEDURES AT AND AFTER SUBSTANTIAL COMPLETION

- A. Requirements for Substantial Completion are found in Specification Section 017700, Closeout Procedures. After receipt of the Certificate of Substantial Completion, the Contractor should submit an Application for Payment at Substantial Completion for reduction in retainage. This Application shall reflect any Certificates of Partial Substantial Completion issued previously for designated portions of the work and any previous reductions in retainage that may have been processed.
- B. The Application for Payment at Substantial Completion should show 100 percent completion for the portion(s) of the work identified as substantially complete. For that work that is not 100 percent complete, the Contractor shall provide a proposed schedule for completion of any incomplete work and a proposed cost estimate to complete each item of work. The basis of this work is the punch list attached to the Certificate of Substantial Completion. The University shall have the final decision as to the schedule and cost for these items of work.

# 1.06 FINAL PROGRESS PAYMENT PROCEDURES

- A. Requirements for Final Completion are found in Specification Section 017700, Closeout Procedures. After receipt of the Certificate of Final Completion, the Contractor should submit a Final Application for Payment.
- B. The following administrative actions and submittals must precede or coincide with an Application for Payment at Substantial Completion.
  - 1. The Contractor shall submit a Consent of Surety to Final Payment, using AIA Form G707 or another form acceptable to or prescribed by the University.
  - 2. The Contractor shall submit AIA Forms G706 and G706A, or other suitable proof of payment of taxes, fees, and similar obligations.

General Requirements for 71-FA-8.1 Contract No. ESU 30-2107

# 1.07 PAYMENT PROCEDURES FOR STORED MATERIALS

- A. The University will consider making payment for materials or equipment not yet incorporated in the work, but delivered, paid for, and suitably stored at the project site or at some other agreed-upon location.
- B. Payment for such materials or equipment stored at a location other than the project site shall be conditional upon the following.
  - 1. The University must determine that the materials or equipment are critical to the project.
  - 2. The materials or equipment must be documented on the System's Stored Materials & Bill of Sale Form, or another form acceptable to or prescribed by the University.
  - 3. The quantities of materials or equipment stored must represent the maximum quantities for which the Contractor may be entitled to payment under the provisions of the Contract.
  - 4. The storage location shall be physically in the Commonwealth of Pennsylvania.
  - 5. The storage location, and the materials or equipment therein, must be available, at reasonable times, to the University for inspection.
  - 6. The materials or equipment shall be stored safely and securely, to protect them from damage or loss.
  - 7. The materials or equipment shall be clearly marked and identified for the project and/or Contract, and as property of the University.
  - 8. The Contractor shall provide proof of insurance for the storage location, and for the materials or equipment therein, against loss or damage, with loss payable to the University.
  - 9. The Contractor shall have good title to the materials or equipment, free and clear of all liens and encumbrances.
  - 10. The Contractor shall provide an invoice, or other form, which adequately establishes the University's title to such materials or equipment while they remain under the custody and control of the Contractor, regardless of any exclusions in the insurance policy.
  - 11. The Contractor shall pay, at its own expense, all costs in connection with the sale, delivery, storage, protection, and insurance of the materials or equipment.
- C. Payment will be made under the appropriate Items on the Schedule of Values as part of a periodic progress payment. Payment will be made only for the invoiced price of the materials or equipment. Overhead and profit will not be paid on stored materials or equipment.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 012900

Attachments: Schedule of Values Form Stored Materials & Bill of Sale Form

# SCHEDULE OF VALUES \_\_\_\_\_UNIVERSITY

ARCHITECT NAME:		CONTRACTOR'S NAME:	CONTRACTOR'S NAME:			CONTRACT NUMBER:				
ADDRESS:		ADDRESS:	ADDRESS:		DESCRIPTION:					
APPROVED:		TELEPHONE NO.	TELEPHONE NO.							
Signature										
DATE:		TYPE OF CONTRACT:								
ITEM NUMBER	ITEM DESCRIPTION	NUMBER AND KIND OF UNIT	COST PER UNIT	MATERIA	L COST	LABOR AND OTHER COST	EXTENDED PRICE			
(we) hereby certify that the above is a true and correct breakdown including all materials, accessories, labor, insurance, etc., per contract requirements.										
Contractor			Title			Date				
University Representative Approval			Title			Date				

# STORED MATERIALS & BILL OF SALE \_\_\_\_\_UNIVERSITY

PROJECT NUMBER:		CONTRACT NUMBER:			PROJECT TITLE:					
LOCATION:		CONTRACTOR:								
MATERIAL/EQUIPMENT	SCHEDULE OF VALUES	STORAGE LOCATION	QUANTITY	UNIT WHOLESALE PRICE		EXTENDED WHOLESALE PRICE				
				TOTA	L	\$				
he Contractor agrees to the terms and conditions of paragraph 1.07, PAYMENT PROCEDURES FOR STORED MATERIALS, of Specification Section 012900, PAYMENT PROCEDURES.										
Contractor		Т	itle		Date					
Iniversity Representative Appr	oval	Т	itle		Date					

# **SECTION 013100**

# PROJECT MANAGEMENT AND COORDINATION

#### PART 1 - GENERAL

# 1.01 MULTIPLE CONTRACTOR COORDINATION

- A. The Lead Prime Contractor shall coordinate all work on the project with and by the other Separate Prime Contractors.
  - The Lead Prime Contractor shall coordinate construction operations that are dependent upon each other for proper installation, connection, and operation to ensure efficient and orderly installation of each and all parts of the work. Where installation of one part of the work is dependent on installation of other work or components, either before or after its own installation, the Lead Prime Contractor shall schedule construction activities in the sequence required to obtain the best results.
  - 2. Where availability of space is limited, the Lead Prime Contractor shall coordinate the installation of different work and components to assure maximum accessibility for required construction or installation, and for any required maintenance, service, and repair. The Lead Prime Contractor shall ensure adequate provisions are made to accommodate items scheduled for later installation.
- B. Each Separate Prime Contractor shall be responsible for installing or connecting certain items that will be furnished by other Separate Prime contractors and bear a direct relationship to the installing contractor's work. Such items of work include, but are not limited to, through-wall louvers and grills, flashings for floor drains, flashing for vent pipes, access panels, connections for electric motors and devices, and work of similar nature.
- C. The Lead Prime Contractor shall coordinate with each Separate Prime Contractor all testing on the project.
- D. The Lead Prime Contractor shall coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the work. Such administrative activities include, but are not limited to, the preparation of schedules, the installation and removal of temporary facilities, and Project close-out activities.
- E. When necessary, the Lead Prime Contractor shall schedule and chair meetings, and prepare memoranda for distribution to each party involved, required for coordination of the work by Separate Prime Contractors.

# 1.02 PROJECT COORDINATION

- A. Within 7 days after notice to proceed, each Separate Prime Contractor shall submit to the University and to all other Separate Prime Contractors the Contractor's principal staff assignments. The list should include the superintendent and all other management and supervisory personnel in attendance at the site, and at least one primary responsible point of contact at the Contractor's home office. The information on the list shall include each individual's duties and responsibilities, their address, and their telephone number(s).
- B. All Separate Prime Contractors shall coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Salvage of all materials and equipment involved in the performance of, but not actually incorporated in, the work shall be maximized.

- C. Each Separate Prime Contractor shall supervise its own construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to the following:
  - 1. excessively high or low temperatures or humidity
  - 2. thermal shock
  - 3. water or ice
  - 4. heavy traffic
  - 5. soiling, staining, and corrosion
  - 6. misalignment
  - 7. excessive weathering
  - 8. unprotected storage
  - 9. improper shipping or handling
  - 10. theft or vandalism
- D. Each Separate Prime Contractor shall, during handling and installation, clean and protect construction in progress and adjoining materials in place. Protective coverings shall be applied where required to ensure protection from damage or deterioration at substantial completion.
- E. Each Separate Prime Contractor shall clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Operable components shall be adjusted and lubricated to ensure operability without damaging effects.

#### 1.03 COORDINATION DRAWINGS

- A. Coordination Drawings serve to coordinate the Work in an area where two or more Separate Prime Contractors have Work, or in an area that has limited space for the installation of various components and systems. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended, or that show sequences and relationships of separate components to avoid conflicts in use of space.
- B. Coordination Drawings are a special type of Shop Drawing, and shall be prepared, formatted, and processed in accordance with the requirements for Shop Drawings in Specification Section 013300. Submittal Procedures.
- C. Refer to Technical Specification sections for specific Coordination Drawing requirements for mechanical and electrical installations. Other Technical Specifications sections may also identify requirements for Coordination Drawings.

# 1.04 REQUESTS FOR INFORMATION (RFI)

- A. In the event that the Contractor determines that some provision or requirement of the drawings, specifications, or other Contract Documents requires clarification or interpretation, the Contractor shall submit an RFI in writing to the University. RFIs may be originated by the Contractor or by any subcontractor or suppliers at any tier, but RFIs shall only be submitted by the Contractor and shall only be submitted on the RFI forms and/or in the manner approved by the University. Each RFI shall be limited to a single subject of inquiry.
- B. The Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought, why a response is needed, and when it is needed. In the RFI, the Contractor shall set forth their own interpretation or understanding of the requirement, along with reasons why such an understanding was reached. RFIs shall contain, at a minimum, the following information.

General Requirements for 71-FA-8.1 Contract No. ESU 30-2107

- 1. Project Name and Number
- 2. Date
- 3. Name of Contractor
- 4. Name of Professional and/or Construction Manager
- 5. RFI number, numbered sequentially
- 6. RFI subject
- 7. Specification Section number and title and related paragraphs, as appropriate
- 8. Drawing number and detail references, as appropriate
- 9. Field dimensions and conditions, as appropriate
- 10. Contractor's suggested resolution; if the Contractor's solution(s) impacts the Contract Time or the Contract Sum, the Contractor shall state the impact in the RFI
- 11. Contractor's signature
- 12. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, Coordination Drawings, and/or other information necessary to fully describe items needing interpretation; include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches
- C. The University will review all RFIs to determine whether they are RFIs within the meaning of this term. If the University determines that the document is not a RFI, it will be returned to the Contractor, un-reviewed as to content, for resubmittal on the proper form and via the proper manner. The following will not be considered to be RFIs, and if submitted as RFIs, will be returned without action.
  - 1. Requests for approval of submittals
  - 2. Requests for interpretation of University's actions on submittals
  - 3. Requests for approval of substitutions
  - 4. Requests for coordination information already indicated in the Contract Documents
  - 5. Requests for adjustments in the Contract Time or the Contract Sum
  - 6. Incomplete or inaccurately prepared RFIs
- D. Responses to RFIs will be issued within five (5) working days of receipt of the RFI from the Contractor, unless the University determines that a longer time is necessary to provide an adequate response. RFIs received after 1:00 p.m. will be considered as received the following work day. If a longer time is determined necessary by the University, the University will, within five (5) working days of receipt of the request, notify the Contractor of the anticipated response time. The University's action may include a request for additional information, in which case the University's time for response will start from the time of receipt of additional information.
- E. If the Contractor submits an RFI on an activity with five (5) working days or less of float on the current project schedule, the Contractor shall not be entitled to any time extension due to the time it takes the University to respond to the request, provided that the University responds within the five (5) working days set forth above.
- F. Responses from the University will not change any requirement of the Contract Documents, unless so noted by the University in the response to the RFI. In the event the Contractor believes that a response to a RFI will cause a change to the requirements of the Contract Documents, the Contractor shall, within seven (7) days of receipt of the RFI response, give written notice to the University stating that the Contractor considers the response to be a change to the requirements of the Contract. Failure to give such written notice shall waive the Contractor's right to seek additional time and/or cost under Article 6, Changes in the Work, of the General Conditions for the Construction Contract.

### 1.05 PROJECT WEB SITE

(Not Used)

# 1.06 DAILY REPORTS

- A. Each Separate Prime Contractor shall submit a Daily Report for each day of the Contract duration. A Daily Report shall be submitted for each non-work day, and it shall indicate that no work took place.
- B. Daily Reports are a submittal that shall be provided on a daily basis, not later than the close of business of the Monday following the work week for the Daily Reports.
- C. Submittal Procedures (Paragraph 1.03) and Review and Disposition of Submittals (Paragraph 1.04) are not required for Daily Reports. Daily Reports shall be submitted directly to the University, with copies submitted to the Professional. The University will review Daily Reports upon receipt, and will notify the Contractor only if there any problems.
- D. The Daily Report shall contain, at least, the following information concerning activities at the Project:
  - 1. List of subcontractors at the site
  - 2. Approximate count of personnel at the site
  - 3. Key equipment utilized on site
  - 4. Activities (keyed to Project Schedule) taking place at the site, to specifically include:
    - a. Features of Work started today
    - b. Features of Work completed today
  - 5. Delivery of key materials and equipment to be installed
  - 6. QC tests conducted
  - 7. L&I UCC visits or inspections
  - 8. Special Inspections conducted
  - 9. High and low temperatures, general weather conditions
  - 10. Accidents and unusual events
  - 11. Meetings and significant decisions
  - 12. Stoppages, delays, shortages, losses
  - 13. Meter readings and similar recordings
  - 14. Emergency procedures
  - 15. Orders and requests from the University, its agents, and other authorities
  - 16. Change Orders received, implemented
  - 17. Any changed, unknown, or concealed conditions encountered
  - 18. Any disputes or differences that may arise to a dispute
  - 19. Services connected, disconnected
  - 20. Equipment or system tests and start-ups
  - 21. Partial Completions, occupancies
  - 22. Substantial Completions authorized
- E. The Contractor may use his own forms or format for the Daily Report, but it must contain the information listed above.
- F. Daily Reports shall include information for all subcontractors working for the Prime Contractor. The Prime Contractor has the option of requiring his subcontractors to submit Daily Reports on their own activities, and those may be attached to the Prime Contractor's Daily Report.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 013100

# SECTION 013119 PROJECT MEETINGS

#### PART 1 - GENERAL

#### 1.01 PRE-CONSTRUCTION CONFERENCE

- A. A Pre-Construction Conference shall be held prior to any work taking place on site. The purpose of the Pre-Construction Conference is to acquaint the Contractor(s) with University contract administration and policies and to introduce the entire project team to each other.
- B. The University will conduct the Pre-Construction Conference at the project site or other convenient location. Representatives of the University and the Contractor shall attend. Representatives should be familiar with and authorized to conclude matters relating to the Contract and the work. At a minimum, the Contractor's project manager and superintendent shall attend. The Contractor may have his major subcontractors, manufacturers, and suppliers in attendance at the Conference, although their attendance is not normally necessary. The University's Professional will normally be in attendance at the Conference.
- C. The agenda should include at least the following topics:
  - 1. contract basics (price, duration/dates, etc.)
  - 2. key representatives and organization of all parties
  - 3. lines of communication
  - 4. contracting authorities and agents
  - 5. distribution of contract documents
  - 6. distribution of university procedures and forms
  - 7. coordination of prime contractors' work
  - 8. tentative construction schedule and critical work sequencing
  - 9. review of critical contract clauses and requirements
  - 10. procedures for requests for information
  - 11. procedures for change orders
  - 12. procedures for applications for payment
  - 13. procedures for submittals
  - 14. preparation of record drawings/documents
  - 15. use of the premises
  - 16. office, work, and storage areas
  - 17. utilities

- 18. university and facility policies and access
- 19. working hours
- 20. permits and intergovernmental requirements
- 21. UCC coordination with the Department of Labor & Industry
- 22. prevailing wage and labor standards
- 23. steel certifications
- 24. equipment deliveries and priorities
- 25. quality control
- 26. disputes
- 27. safety and health
- 28. environmental protection
- 29. security
- 30. housekeeping and clean-up
- 31. substantial completion and contract completion
- 32. testing and commissioning
- 33. warranties
- D. The University will designate a party to record and publish a record of the Conference. Normally this will be the Professional.

# 1.02 PROGRESS MEETINGS

- A. Periodic Progress Meetings will normally be held every two weeks during the Contract duration, but the frequency and schedule will be determined by the University in coordination with the Contractor. The purpose of Progress Meetings is to review status of work to date and plan for future work.
- B. Representatives of the University and the Contractor shall attend the Meetings. Representatives should be familiar with and authorized to conclude matters relating to the Contract and the work. At a minimum, the Contractor's project manager and/or superintendent shall attend. The University's Professional will normally be in attendance at the Meeting.
- C. The agenda should include at least the following:
  - 1. review and approval or correction of minutes of the previous meeting
  - 2. review of any special coordination or other meetings held since the previous Periodic Progress Meeting
  - 3. review of outstanding submittals and late submittals

- 4. review of open requests for information
- 5. review of open change orders and change order requests
- 6. review of any tests or inspections that were not successful
- 7. review of progress, in relation to the Project Schedule, since the last Periodic Progress Meeting
- 8. review of work, in relation to the Project Schedule, planned for the next two weeks
- 9. review of other items of significance that could impact the project or progress
- 10. review of present and future needs of each Contractor and party present
- D. In all cases, the Meeting attendees shall focus on a plan for resolution of open items and issues. If the project is behind schedule, discussion shall include a determination of how construction that is behind schedule will be returned to schedule, and securing of commitments from parties involved to do so; such discussion shall include whether schedule revisions are required to ensure that current and subsequent activities will be completed within the contract time
- E. The University will designate a party to record and publish a record of the Meeting. Normally this will be the Professional.

#### 1.03 PRE-INSTALLATION MEETINGS

- A. Prior to the start of work on any new feature of work, pre-installation coordination should take place that ensures that all parties involved in the feature of work are prepared to accomplish the work in accordance with the Contract requirements. Pre-installation coordination may take place during or in conjunction with Progress Meetings, or a separate meeting may take place.
- B. Pre-installation coordination should include a check of at least the following:
  - 1. review of the applicable specifications and drawings
  - 2. check to ensure materials and/or equipment to be installed have been submitted and approved
  - 3. check to ensure that materials and/or equipment to be installed are on hand, and that those on hand are as submitted and approved, to include any applicable steel certifications
  - 4. review of any required testing or inspection procedures, and that such tests or inspections are ready to be performed
  - 5. examination of the work area to ensure that all preliminary work is complete and in compliance with the Contract requirements
  - 6. discussion of procedures for controlling the work, for avoiding common deficiencies in the work, and achieving standards that meet the Contract requirements
  - 7. review of safety and health considerations and/or review of the Contractor's activity hazard analysis

# 1.04 PRE-COMPLETION MEETINGS

(Not Used)

PART 2 – PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 013119

# **SECTION 013200C**

# **CONSTRUCTION PROGRESS DOCUMENTATION**

#### PART 1 - GENERAL

# 1.01 QUALIFICATIONS

The Lead Prime Contractor shall designate an individual who shall be responsible for the Project Schedule.

# 1.02 SCHEDULING OF WORK

- A. The Lead Prime Contractor shall be responsible for scheduling of construction, and for developing, updating, and maintaining a Project Schedule as described in this Section. Other Separate Prime Contractors shall actively participate in schedule development, updating, and maintenance.
- B. Separate Prime Contractors shall have their subcontractors and suppliers working on the project also contribute in developing, updating, and maintaining the Project Schedule. Subcontractor and supplier coordination shall be through their respective Separate Prime Contractor only.
- C. The approved Project Schedule shall be used to manage the work, to measure the progress of the work, and to aid in evaluating time extensions.
- D. The approval of the Project Schedule by the University is for assurance that the Project Schedule complies with the requirements of this Section, and that the Project Schedule approximates an acceptable general flow of the Work. Construction means and methods and management of the Work are the responsibility of the Contractors.
- E. The Project Schedule shall include signature boxes for signatures by representatives of all Separate Prime Contractors, certifying acceptance of the Project Schedule. Acceptance of the Project Schedule does not relieve the Contractors of the responsibility for the accuracy of the Project Schedule and for the Contractors' obligations to meet the contractual completion date.
- F. Each Separate Prime Contractor shall prosecute its Work to maintain its progress in accordance with the Project Schedule, so that no delays are caused to other Separate Prime Contractors.
- G. In the event of disagreement involving the designated Lead Prime Contractor and one or more of the other Separate Prime Contractors regarding developing, updating, or maintaining the Project Schedule, determinations of the Lead Prime Contractor will control.
- H. Failure by any other Separate Prime Contractor to provide full cooperation with the Lead Prime Contractor in accomplishing any Project Scheduling actions will be sufficient grounds for declaring that Contractor in default.
- I. No Contractor may assert any claim whatsoever for any delay or additional costs incurred in development of the Project Schedule or any related requirement of this Section.

### 1.03 CONSTRUCTION PROGRESS SCHEDULE

A. Use of Manual Methods. Manual scheduling methods may be used to generate the Project Schedule. Manual scheduling methods means that hand-drawn diagrams and calculations may

be used. The diagram may be a hand-drawn Critical Path Method (CPM) or Precedence Diagram Method (PDM) diagram, or a hand-drawn Gantt Chart or bar chart, as appropriate for the Project and the Work involved. Computer-generated schedules, diagrams, and calculations are also allowed.

- B. Level of Detail Required. The Project Schedule shall include an appropriate level of detail to manage the Work and to evaluate the progress of the Work.
- C. Reasonable Durations. Reasonable durations are to be determined by the Contractors by consideration of planned crew size/composition, and such durations shall allow the progress of activities to be accurately determined between updates periods.
- D. Procurement Activities. Tasks related to the procurement of long-lead materials or equipment shall be included as separate activities in the Project Schedule. Long-lead materials and equipment are those that have a procurement cycle of over twenty-one (21) days.
- E. University Activities. University and others' activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-ins, University-furnished equipment and property, and any separate Notice to Proceed (NTP) for phasing. UCC-required inspections at the various stages of construction shall be shown.
- F. Responsibility. All activities shall be identified in the Project Schedule by the Separate Prime Contractor responsible to perform the work. Activities shall not belong to more than one Separate Prime Contractor.

#### 1.04 SCHEDULE SUBMITTALS

- A. Project Schedule Submission. The Project Schedule shall be submitted for approval within seven (7) calendar days after NTP. The Project Schedule submission shall contain the following items.
  - 1. Project Schedule Diagram. The Project Schedule diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The diagram may be a hand-drawn Critical Path Method (CPM) or Precedence Diagram Method (PDM) diagram, or a hand-drawn Gantt Chart or bar chart. The activity name and duration shall be shown on the diagram. Dates shall be shown on the diagram for start of project, any contractually-required interim completion dates, and the contract completion date. The critical path shall be clearly shown.
  - 2. Project Schedule Report Data. The Project Schedule shall contain, or shall be accompanied with reports that contain, Project Schedule data. Unless otherwise agreed upon, the data shall include Activity Name, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, and Total Float. Actual Start and Actual Finish Dates shall be provided for those activities in progress or completed. If the project has Separate Prime Contractors, a list of all activities sorted according to Separate Prime Contractor shall be provided.
- B. Finalization of the Project Schedule. The Project Schedule must be finalized and accepted and signed by all Separate Prime Contractors, and approved by the University not more than fourteen (14) calendar days after NTP. Failure to finalize the Project Schedule by that date will result in the withholding of all Contract payments until the Project Schedule is finalized.
- C. Periodic Project Schedule Updates. Schedule Updates, based on the Project Schedule and all preceding Schedule Updates, and defining the current status of the work and the plan for the remaining work, shall be submitted either monthly or on an agreed-upon periodic basis. The Schedule Update submissions shall contain an updated Project Schedule Diagram and Project

Schedule Report Data. All approved time extensions and change orders, and any other schedule adjustments, to include rearranging the flow of the Work and/or changing activity durations, shall be appropriately integrated.

- D. Distribution of the Project Schedule and Schedule Updates. The Lead Prime Contractor shall print and distribute copies of the Project Schedule and any Schedule Updates to the University, the Professional, and all other Separate Prime Contractors. Copies shall also be posted or made available in the Project meeting room and/or temporary field office.
- E. Project Schedule Required for Payment. The Contractor shall have submitted the Project Schedule submissions required as of the date of Application for Payment in order to have the Application for Payment considered for payment by the University.

# 1.05 SCHEDULE ADJUSTMENTS AND SPECIAL CONSIDERATIONS

- A. Regaining Lost Time. If the Work is behind schedule, the Project Schedule shall be adjusted by the Contractors by revising the sequence of activities, by increasing shifts and/or manpower, and/or by other means necessary to regain lost time.
- B. Schedule No Longer Applicable. If the Contractors perform the work in such a manner that the Project Schedule no longer indicates the actual logic and activity durations being employed for the Work, the Lead Prime Contractor shall develop a revised Project Schedule that reflects the actual management and prosecution of the Work.
- C. Requests for Time Extensions. In the event any Separate Prime Contractor requests an extension of the contract completion date, that Contractor shall furnish a written justification based on the Project Schedule so that the University may make a determination as to whether or not an extension of time should be approved. Only delays in activities which affect critical path activities will be considered for a time extension. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the Project Schedule, will not be a cause for a time extension. In no event will the granting of an extension of time to one Separate Prime Contractor automatically entitle any other Separate Prime Contractor to an extension of time.
- D. Ownership of Float. Float available in the Project Schedule, at any time, shall not be considered for the exclusive use of either the University or any Separate Prime Contractor.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 013200C

# **SECTION 013300**

#### **SUBMITTAL PROCEDURES**

#### PART 1 - GENERAL

#### 1.01 RESPONSIBILITIES

- A. The University will designate a representative, either an individual or a third party, who will be responsible for reviewing and approving submittals. Normally the University's representative will be the University's Professional. Identification of the representative, and the specific submittal transmittal procedures, will be provided by the University at the Pre-Construction Conference.
- B. Each Contractor shall designate, not later than the Pre-Construction Conference, an individual within their firm who will be responsible for approving submittals prior to transmittal to the University's representative.

# 1.02 SUBMITTAL REGISTER

- A. The Submittal Register shall be an organized, comprehensive list for planning and tracking submittals.
- B. Within the Project Manual, or prior to the Pre-Construction Conference, the University or its representative will provide to each Separate Prime Contractor a list of submittals required for the Contract. While this list will be the basis of the Submittal Register, it should not be construed to necessarily be an accurate or complete list. The Contractor shall be responsible to ensure that all submittals required by the Contract Documents are included in the Submittal Register.
- C. Within fourteen (14) days after the Pre-Construction Conference, each Separate Prime Contractor shall submit to the University's representative a list, with dates, of their submittals required during the first sixty (60) days of construction.
- D. Within fourteen (14) days after the Construction Schedule is approved, each Separate Prime Contractor shall submit to the University's representative a complete Submittal Register for the duration of the construction.
- E. The University's representative may provide a specific form and format for the Submittal Register. In the absence of a form or format being provided, the Register shall contain at least the following information:
  - 1. related technical specification section number
  - 2. name of submittal
  - 3. submittal category (shop drawing, product data, sample, etc.)
  - 4. scheduled date for the submittal
  - 5. scheduled date required for approval
- F. The Submittal Register shall be prepared in order of Technical Specification section. The University's representative may, at its option, request the Register be prepared in chronological order.
- G. The University's representative may request or require an electronic or automated Submittal Register, either as a primary or supplemental Register.
- H. The Submittal Register shall be coordinated with the Project Schedule, as well as with the list of subcontractors and the Schedule of Values.

- I. Each Contractor shall provide copies of his Submittal Register to the University, its representative, the other Separate Prime Contractors, the Professional (if the Professional is not the University's representative), and any other parties required to comply with submittal dates indicated. Additionally, a copy shall be made available in the Contractor's field office.
- J. Failure by the Contractor to include on the Submittal Register a submittal required by a Technical Specification section does not relieve the Contractor from having to make that submittal. Any omission shall be integrated into the Register when the omission is noted.
- K. The Contractor and the University's representative shall jointly work together to ensure that the Submittal Register is updated not less than monthly. Updates and revisions will be distributed to the same parties and posted in the same locations as identified in paragraph III.B.9. above.

## 1.03 SUBMITTAL PROCEDURES

- A. The Contractor shall coordinate preparation and processing of submittals with procurement and construction activities.
  - 1. Each submittal should be transmitted sufficiently in advance of related procurement and construction activities to avoid delay.
  - 2. Each submittal should be coordinated with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 3. The Contractor should plan for the possibility of some of the more complex submittals not being approved the first time they are submitted, and he should plan on additional lead time for at least one re-submittal of such submittals. Typical submittals requiring more than one submittal before approval include structural steel, food service equipment, and HVAC controls.
  - 4. Additional time should be scheduled for different types of submittals for related elements of the Work that require coordination during review. The University and its representative reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
  - 5. Additional time should be scheduled if a submittal contains a deviation from the Contract requirements.
- B. Submittal processing and review times.
  - Unless otherwise indicated in the Contract or in any Technical Specification, a total of fourteen (14) days shall be allowed for review and disposition (approval or disapproval) of a submittal. The fourteen days will start when the University's representative receives the submittal, and will end when the University's representative sends the dispositioned submittal back to the Contractor.
  - 2. A re-submittal of a submittal previously not approved shall be considered a new submittal for processing time.
  - 3. No extension of Contract Time will be authorized because of the Contractor's failure to transmit a submittal to the University's representative sufficiently in advance of the Work to permit processing.
- C. Each submittal shall be identified and transmitted by use of a transmittal sheet. Unless the University or its representative provides a form for the transmittal sheet, the Contractor may

use any format acceptable to the University and/or its representative. In any case, the transmittal sheet shall contain at least the following:

- 1. Contract number and name
- 2. name and address of Contractor
- 3. related technical specification section number and title
- 4. name of submittal
- 5. type of submittal (shop drawing, product data, etc.)
- 6. date
- 7. scheduled date for the submittal
- 8. scheduled date required for release or approval
- 9. name and address of subcontractor, supplier, or vendor (as appropriate)
- 10. Contractor's certification that information complies with the Contract requirements, and if there are any deviations (as appropriate)
- 11. a space for approval/disapproval/comments by the University's representative and date
- D. Each submittal shall be reviewed and approved by the Contractor prior to transmittal to the University's representative. Submittals received directly from sources other than the Contractor, and those that do not have an approval and/or certification by the Contractor, will be returned without action.
- E. Each submittal should be packaged individually for transmittal and processing.
- F. Any deviations from the Contract requirements shall be clearly marked.
- G. After submittals have been processed, no re-submittal for the purpose of substituting materials or equipment will be considered unless processed in accordance with Specification Section 016200, Product Options.

#### 1.04 REVIEW AND DISPOSITION OF SUBMITTALS

- A. Submittals will be reviewed, marked as to indicate disposition, and returned promptly. Disposition may include the following:
  - 1. <u>Approved</u>. The submittal is approved; no further action relative to the submittal is required. The Contractor may proceed with the Work.
  - Approved with Comments. The submittal is approved, except for minor corrections or variations. The Contractor may proceed with the Work but shall include the corrections or variations. No resubmittal is required. Any corrections or variations should be noted on record drawings and files.
  - 3. <u>Partial Approval</u>. A portion of the submittal is approved, but another portion is not approved. A resubmittal is required only for that portion not approved. The Contractor may proceed with Work represented by that portion of the submittal that is approved, if it is separate and distinct Work, but the Contractor may not proceed with any Work represented by that portion of the submittal that is not approved.
  - 4. <u>Not Approved</u>. The submittal is not approved. A total resubmittal is required. The Contractor may not proceed with the Work.
- B. The review and approval of a submittal by the University or its representative is for conformance with the information given in the Contract Documents and with the design concept of the project. Approval does not relieve the Contractor of the responsibility for compliance with Contract requirements or with statutory or regulatory requirements. Moreover, the Contractor is responsible for dimensions, quantities, details and connections, fabrication, construction methods, and coordination of trades required for satisfactory construction of all Work.

#### 1.05 SHOP DRAWINGS

A. Shop Drawings are a specific type of submittal. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings, and Coordination Drawings. Shop Drawings may include extensions of design.

#### B. Format.

- Shop Drawings shall consist of newly prepared information, drawn to accurate scale, and shall not simply be reproduced Contract Documents or copies of standard information. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- 2. Except for templates, patterns, and similar full-size drawings, Shop Drawings shall be submitted on sheets at least 8-1/2" x 11", but no larger than 30" x 42".
- 3. Shop Drawings shall contain a space approximately 4" x 5" on the label or beside the title block to record the Contractor's review and approval markings and to record the review and disposition by the University's representative.
- 4. Shop Drawings should include at least the following:
  - a. dimensions
  - b. identification of products and materials included
  - c. compliance with specified standards
  - d. notation of coordination requirements
  - e. notation of dimensions established by field measurement
  - f. identification or highlighting of deviations from the Contract requirements
- C. Unless otherwise specified, a Shop Drawing Submittal shall consist of four (4) blue or black line prints. For Shop Drawings that are required for Operations and Maintenance Manuals, one (1) additional blue or black line print shall be submitted. If agreed upon, electronic drawings on CD may be acceptable in lieu of hard copy drawings. After review and disposition by the University's representative, two (2) regular prints will be returned, and the remainder will be retained by the University's representative and/or the University. One (1) print returned shall be marked and maintained as a "Record Document."
- D. Shop Drawings that do not contain an appropriate final stamp by the University and/or its representative indicating review and disposition shall not be used in connection with the construction.

### 1.06 COORDINATION DRAWINGS

- A. Coordination Drawings are a special type of Shop Drawing, and shall be prepared, formatted, and processed in accordance with the requirements for Shop Drawings.
- B. Coordination Drawings serve to coordinate the Work in an area where two or more Separate Prime Contractors have Work, or in an area that has limited space for the installation of various components and systems. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended, or that show sequences and relationships of separate components to avoid conflicts in use of space.
- C. Coordination Drawings may include components previously Submitted as Shop Drawings or Product Data.

D. Refer to Technical Specification sections for specific Coordination Drawing requirements for HVAC, other mechanical, plumbing, electrical, and related installations. Other Technical Specifications sections may also identify requirements for Coordination Drawings.

#### 1.07 PRODUCT DATA

- A. Product Data are a specific type of submittal. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams, templates, standard wiring diagrams, and performance curves.
- B. Where Product Data must be specially prepared because standard printed data is not suitable for use, Product Data shall be submitted as Shop Drawings.

#### C. Format.

- Each copy of printed materials submittal as Product Data shall be marked to indicate applicable choices and options. Where Product Data includes information on several products, some of which are not required, copies shall be marked to indicate the applicable information.
- 2. Product Data should include at least the following:
  - a. manufacturer's printed recommendations
  - b. compliance with recognized trade association standards
  - c. compliance with recognized testing agency standards
  - d. application of testing agency labels and seals
  - e. notation of dimensions verified by field measurement
  - f. notation of coordination requirements
- D. Unless otherwise specified, a Product Data Submittal shall consist of four (4) copies of the Product Data. After review and disposition by the University's representative, two (2) copies will be returned, and the other copy will be retained by the University's representative and/or the University.
- E. Product Data that do not contain an appropriate final stamp by the University and/or its representative indicating review and disposition shall not be used in connection with the construction. Installation shall not be initiated until an applicable copy of Product Data is in the installer's possession.

#### 1.08 SAMPLES

- A. Samples are a specific type of submittal. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern. Field Samples are a special type of Samples.
- B. Samples are submitted for review of kind, color, pattern, and texture, and for a final check of these characteristics with other elements. Samples are also utilized for a comparison of these characteristics between the Submittal and the actual material or product as delivered and installed.

#### C. Format.

- 1. Samples shall be submitted as full-size, fully-fabricated samples, cured and finished as specified, and physically identical with the material or product proposed.
- 2. Samples shall be mounted, displayed, or packaged in the manner specified to facilitate review of qualities indicated.

- 3. Samples shall be prepared to match the Professional's Sample, if indicated.
- 4. Where variation in color, pattern, texture, or other characteristics are inherent in the material or product represented, multiple units (not less than three (3)) that show approximate limits of the variations shall be submitted.
- Where Samples are for selection of color, pattern, texture, or similar characteristics from a range of standard choices, a full set of choices for the material or product shall be submitted.
- 6. All interior finish Samples requiring coordinated color, texture, and other characteristics shall be submitted as a group.
- 7. Samples shall include at least the following:
  - a. generic description of the Sample
  - b. sample source
  - c. product name or name of manufacturer
  - d. compliance with recognized standards
  - e. availability and delivery time
- D. Unless otherwise specified, a Sample Submittal shall consist of three (3) sets. After review and disposition by the University's representative, two (2) sets will be returned, and the other set will be retained by the University's representative and/or the University.
- E. Sets of Samples shall be maintained at the Project site for quality comparisons throughout the course of construction. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- F. Field Samples specified in individual Technical Specification sections are a special type of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials, and to establish the standard against which the Work will be compared. Transmittal sheets shall be used to provide a record of review and disposition for Field Samples.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 013300

## **SECTION 013500C**

#### SAFETY AND HEALTH REQUIREMENTS

#### PART 1 - GENERAL

1.01 The Contractor shall comply with Federal OSHA regulations and other related safety and health regulations. The most stringent standard shall prevail.

#### 1.02 SAFETY AND HEALTH PERSONNEL

#### A. Definitions.

- 1. Site Safety and Health Officer (SSHO). The qualified or competent person who is responsible for the on-site safety and health required for the project.
- 2. Certified Industrial Hygienist (CIH). An individual who is currently certified as a CIH by the American Board of Industrial Hygiene.
- 3. Certified Safety Professional (CSP). An individual who is currently certified as a CSP by the Board of Certified Safety Professionals.
- 4. Associate Safety Professional (ASP). An individual who is currently certified as an ASP by the Board of Certified Safety Professionals.
- 5. Certified Construction Health & Safety Technician (CHST). An individual who is currently certified as a CHST by the Board of Certified Safety Professionals.
- 6. Certified Safety Trained Supervisor (STS). An individual who is currently certified as an STS by the Board of Certified Safety Professionals.
- 7. Competent Person. A person who is capable of identifying hazardous or dangerous conditions, as well as the application and use of related equipment, and has the authority to take prompt corrective measures to eliminate any hazards, in relation to a specific area of safety or health. Typical areas include excavation, scaffolding, fall protection, confined spaces, hazardous energy, etc.
- 8. Pandemic Safety Officer (PSO). An individual who has been identified by the Prime Contractor as being responsible to convey, implement, and enforce the requirements of the Governor's guidance for the protection of employees, suppliers, and other personnel at the site. The PSO is also responsible for coordinating with the contractor's subcontractors.
- B. Positions and Requirements for This Contract.
  - The Contractor shall assign an SSHO to be responsible for safety and occupational health management, surveillance, inspections, and enforcement for the Contractor's Work on the Project.
  - The SSHO may be the superintendent or another member of the Contractor's onsite staff. While the SSHO duties are secondary to their primary duties, sufficient time and effort shall be put toward accomplishment of SSHO duties. The SSHO shall be on site whenever construction activities are taking place.
  - 3. The SSHO shall have the following experience and meet the following credentials:

- Level 1: A minimum of three (3) years safety-related work on similar projects. Completed 10-hour OSHA construction safety class or equivalent within the last three (3) years. Competent person training as needed.
- 4. The on-site SSHO shall be supplemented by a member of the Contractor's home-office staff, or a consultant to the Contractor, who visits the project site on an asneeded basis to provide higher-level monitoring and control of safety and health requirements.
- C. The duties and responsibilities of the SSHO shall include, but shall not be limited to, the following.
  - 1. Ensure compliance with Federal OSHA regulations and other related safety and health regulations.
  - 2. Implement and enforce the Contractor's safety and health policy and program.
  - 3. Conduct periodic safety and health inspections.
  - 4. Maintain applicable safety and health reference material on the job site.
  - 5. Ensure subcontractor compliance with safety and health requirements.
  - 6. Conduct safety and health-related meetings and training, or ensure that they take place.
  - 7. Conduct accident and mishap investigations and complete required reports.
  - 8. Coordinate with the SSHOs of other Separate Prime Contractors.
  - 9. The SSHO may also hold the responsibilities of the PSO.

# 1.03 SAFETY AND HEALTH PLAN (SHP)

- A. The Contractor shall prepare a SHP, which shall consist of, at least, a copy of the Contractor's overall safety and health program supplemented with project-specific information.
- B. The project specific information included in the SHP should be, at a minimum, the following:
  - 1. Administrative responsibilities (identification by name and specific responsibilities of Contractor personnel) relative to safety and health requirements for this project.
  - 2. Plan for dealing with emergencies, to include but not limited to on-site medical support and first aid, ambulance service, fire fighting, and evacuation of the project site.
  - 3. Reference to any special plans (Paragraph 1.04 E.) required by the nature of the Contract/Project or the Work, and any unusual or unique requirements for safety or health for this Contract/Project.
- C. Separate Prime Contractors should coordinate their SHPs to ensure consistency. Separate Prime Contractors must recognize that they may have differing levels of requirements for their SSHOs and for contents of their SHPs.
- D. The SHP shall be signed by the person preparing the SHP, the Contractor's on-site superintendent/SSHO, and an officer of the Contractor.

- E. The SHP shall be completed, and a copy of the SHP shall be submitted, as proof of compliance, to the University prior to any work taking place on the project site. The Contractor shall maintain copies of the SHP at the project site, and make them readily available to all workers, subcontractors, and the University.
- F. The SHP shall be continuously reviewed and revised, as necessary, throughout the life of the Contract. All revisions shall be submitted to the University.

#### 1.04 MISCELLANEOUS REQUIREMENTS

- A. A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The University considers the Contractor to be the "controlling authority" for all work site safety and health of his subcontractors. The Contractor is responsible for informing his subcontractors of the safety and health provisions under the terms of the Contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that safety and health responsibilities are being carried out.
- B. The Contractor shall provide a location for displaying safety and health information, to include information such as emergency phone numbers, a map showing the route to the nearest emergency care facility, a copy of the up-to-date SHP, OSHA 300A Form, OSHA Safety and Health Protection-On-The-Job Poster, and any permits required relative to safety and health. The location shall be in a conspicuous place easily accessible to all employees and visitors.
- C. All new employees (both prime contractor and subcontractor) shall be informed of the SHP and about specific site hazards before they begin work.
- D. The Contractor shall arrange for emergency medical treatment and evacuation of the project site for his own workforce. The University has no responsibility to provide these services.
- E. The Contractor shall prepare and implement any additional specific safety and health plans required to carry out the work. Such plans include but are not limited to Hearing Protection/Conservation Plan, Hazardous Energy Control Plan (Lockout/Tagout), Respiratory Protection Plan, Hazard Communications Plan, Emergency Response Plan, Site Safety and Health Plan for Asbestos Abatement, or Site Safety and Health Plan for Lead-Based Paint Asbestos Abatement. Any such plans shall be submitted to the University as proof of compliance.
- F. The Contractor shall not bring any hazardous material onto the project site without prior written approval of the University.
- G. Documents, records, and reports required by this Section, but not specifically required to be submitted to the University, shall be made available to the University upon request.

# 1.05 ACCIDENT REPORTING

- A. The Contractor shall notify the University, by any reasonable means, as soon as practical, but not later than four (4) hours after, the occurrence of any accident involving injury or illness, or involving property damage anticipated to be greater than \$2,500. Initial notification should provide basic information about the occurrence.
- B. The Contractor shall provide to the University, not later than 48 hours after the occurrence, a follow-up written report containing detailed information. Information should include the Contractor's name, contract number and title, location where the accident occurred, date and time of accident, names of personnel injured and/or extent of property damage, extent of injury and/or damage, brief description of accident (to include type of construction equipment used,

PPE used, etc.), and actions taken to eliminate the hazard and/or prevent similar accidents.

#### 1.06 CONTRACTOR AND PUBLIC PROTECTION

- A. The Contractor shall notify the University if he intends to bring flammable materials onto the site, including information as to the volume and intended use. Only the amount needed for the day shall be stored on site, and any amount remaining at the end of the day shall be removed. When removal is not practical, flammable materials shall be stored in proper containers.
- B. The Contractor is prohibited from bringing any radioactive materials on campus without first obtaining permission from the University Radiation Safety Officer.
- C. Chemical materials other than potable water shall not be placed into the sanitary or storm sewers without the permission of the University.
- D. Open ditches shall be fenced. Where walks cross ditches, bridged walkways shall be provided with rails on both sides. Bridged walkways shall be adequately lighted at night.
- E. Temporary walks and roads shall be surfaced by PENNDOT Number 2 or 2A crushed stone if they are to be in public use.
- F. Walks and roadways used by both the Contractor and the public shall be kept in a good state of repair and cleared by the Contractor at least once each day and more often as conditions require.
- G. Adequate covering and shielding shall be provided for areas needing protection from equipment or falling objects, where the public utilizes walkways, roadways, or entrances that are adjacent to construction, pass under construction scaffolding, or pass near building edges.
- H. Fire Hydrants shall be maintained accessible for fire fighting purposes. Obstructions shall not be placed within fifteen (15) feet of fire hydrants.
- I. Temporary heating units of any type shall be adequately protected and attended.
- J. The Contractor is responsible for implementing methods to adequately and safely minimize/eliminate, control, capture, and/or exhaust any incomplete combustion byproducts such as carbon monoxide gas or any other such gas created by construction, vehicles, portable heating devices, etc.

# 1.07 COVID-19 REQUIREMENTS AND RECOMMENDATIONS

- A. The Contractor shall follow all applicable provisions of orders issued by Pennsylvania's Secretary of Health, including:
  - 1. The <u>Order</u> of the Secretary of Health providing for business safety measures including but not limited to provisions requiring that every person present at a work site wear masks/face coverings, and provisions requiring the establishment of protocols for execution upon discovery that the business has been exposed to a person who is a probable or confirmed case of COVID-19. Note, masks and face coverings will not be provided by the University.
  - 2. The Order of the Secretary of Health providing for building safety measures.
- B. The Contractor shall follow applicable guidance from the <u>Department of Health</u> and the <u>Centers for Disease Control and Prevention concerning operations and workplaces.</u>

- C. The Contractor shall follow all provisions included in the <u>Governor's Guidance for Business in</u> the Construction Industry
- D. The Contractor shall identify a "Pandemic Safety Officer". The primary responsibility of the Pandemic Safety Officer will be to convey, implement, and enforce the social distancing and other requirements of the Governor's guidance for the protection of employees, suppliers, and other personnel at the site. The Pandemic Safety Officer is also responsible for coordinating with the contractor's subcontractors. Submit the name and contact information of the Pandemic Safety Officer to the University Project Manager. This may be the same individual named as the Safety Officer if that position is required pursuant to Section 013500 of the contract.
- E. In addition to the conditions above, the following recommendations are made concerning construction activities:
  - It is recommended contractors establish a written Safety Plan for each work location containing site specific details for the implementation of this guidance to be shared with all employees and implemented and enforced by the designated Pandemic Safety Officer.
  - 2. It is recommended that each jobsite have signage posted indicating best practices and safety guidelines for construction sites.
  - 3. It is recommended contractors consult with trade associations and other appropriate organizations for recommendations and guidelines for the construction industry. For example, the <u>Master Builders' Association of Western Pennsylvania</u> website contains additional guidelines regarding cleaning/disinfection of jobsite, trailers, equipment, etc.

# Links:

1.07 A.1. <a href="https://www.governor.pa.gov/wp-content/uploads/2020/04/20200415-SOH-worker-safety-order.pdf">https://www.governor.pa.gov/wp-content/uploads/2020/04/20200415-SOH-worker-safety-order.pdf</a>

1.07 A.2. <a href="https://www.governor.pa.gov/wp-content/uploads/2020/04/20200405-SOH-Building-Safety-Measures.pdf">https://www.governor.pa.gov/wp-content/uploads/2020/04/20200405-SOH-Building-Safety-Measures.pdf</a>

1.07 B. <a href="https://www.health.pa.gov/topics/disease/coronavirus/Pages/Coronavirus.aspx">https://www.health.pa.gov/topics/disease/coronavirus/Pages/Coronavirus.aspx</a>; <a href="https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html">https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html</a>

1.07 C. https://www.governor.pa.gov/covid-19/construction-industry-guidance/

1.07 E.3. https://myemail.constantcontact.com/COVID-19-Cleaning-and-Disinfecting-Information.html?soid=1102658846855&aid=5oS3t596JZw

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 013500C

# SECTION 014500 QUALITY CONTROL

#### PART 1 - GENERAL

#### 1.01 QUALITY CONTROL CONCEPTS

- A. Quality Control Services include inspections, tests, and related actions, including reports, performed by the Contractor, independent agencies, and governing authorities during and after the execution of the Work to evaluate that the Work complies with the Contractual requirements. Quality Control Services do not include Contract enforcement activities performed by the University or its Professional.
- B. Inspection and Testing Services may be required to verify compliance with requirements specified or indicated, and are considered to be part of Quality Control Services. Such Inspection and Testing Services do not relieve the Contractor of responsibility for compliance with Contract requirements.
- C. Specific Quality Control requirements for individual construction activities are specified in the respective Technical Specification sections for those construction activities. Those Quality Control requirements cover production of standard products as well as customized fabrication, installation, and construction. Requirements for Quality Control Services may also be required by governing authorities.
- D. Quality Control Services specified are not intended to limit the Contractor's quality control procedures to facilitate compliance with Contract requirements, and do not relieve the Contractor of responsibility for compliance with the Contract requirements.
- E. Requirements for which the Contractor is to provide Quality Control Services, and which are also being conducted by the University, its Professional, and/or authorities having jurisdiction, are not limited by provisions of this Section.

# 1.02 RESPONSIBILITIES

#### A. Contractor.

- 1. Separate Prime Contractors shall provide those Quality Control Services specified in the Technical Specification sections, or required by governing authorities, related to their Work, except where they are specifically indicated to be the responsibility of another Separate Prime Contractor, or the responsibility of the University, its Professional, or another entity.
- 2. The Contractor shall employ qualified individuals and/or qualified contracted testing laboratories, consultants, or other qualified individuals or firms to conduct their Quality Control Services.
- Specified Quality Control Services may include specific requirements for Inspection and Testing Services, and if indicated to be the responsibility of the Contractor, the Contractor shall employ a testing laboratory, consultant, or other qualified individual or firm to perform the inspection or test.
- B. University. University inspections and tests are addressed in paragraph 1.05 below.
- C. Re-testing.

- The Contractor is responsible for re-inspection or re-testing where results of required inspections, tests, or similar services prove unsatisfactory and do not indicate compliance with the Contract Document, regardless of whether the original inspection or test was the Contractor's responsibility.
- 2. The Contractor is responsible for re-inspection or re-testing of construction that is revised or replaced by the Contractor and where required inspections or tests were performed on original construction, regardless of whether the original inspection or test was the Contractor's responsibility.
- 3. Responsibility for re-inspection/re-testing includes arrangement, coordination, and cost of, and any impacts related to the conduct of, such re-inspection or re-test.

#### 1.03 PROCEDURES

- A. Any testing laboratory, consultant, or other qualified individual or firm engaged for Quality Control Services shall be licensed to operate in the Commonwealth of Pennsylvania.
- B. Any testing laboratory engaged shall be prequalified as complying with Recommended Requirements for Independent Laboratory Qualification by the American Council of Independent Laboratories, and shall specialize in the types of inspections and tests to be performed.
- C. If the Contractor is required to engage an Inspection and Testing Service, and the University has also employed an Inspection and Testing Service for the same or related services, the Contractor shall not employ the same Service engaged by the University, unless otherwise approved in writing by the University.
- D. Where Quality Control Services are indicated as the responsibility of the University or its Professional, the University will furnish to the Contractor the names, addresses, and telephone numbers of those testing laboratories, consultants, or other qualified individuals or firms to be engaged, and a description of the types of inspections and tests they will perform.
- E. The Contractor shall cooperate with the University and governing authorities, and any other entities engaged by either of them, performing required inspections, tests, and similar services, and the Contractor shall provide reasonable auxiliary services as requested. Auxiliary services required include but are not limited to:
  - 1. Providing access to the Work.
  - 2. Furnishing incidental labor and facilities necessary to facilitate inspections and tests.
  - 3. Providing preliminary design mix or other design data related to the inspections or tests.
  - 4. Taking adequate quantities of representative samples of materials that require testing, or assisting in taking samples.
  - 5. Providing facilities for storage and curing of test samples, and delivering samples to testing laboratories.
  - 6. Securing and protecting inspection, sampling, and test equipment at the Project site.
- F. Contractors and all entities performing inspections, tests, and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. Contractors, the University, and each entity shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests. The General

Construction Contractor is responsible for coordinating and scheduling times for inspections, tests, taking samples, and similar activities whenever those activities affect more than one Prime Contractor.

G. Prior to and during inspecting, testing, and similar services, the Contractor responsible for that inspection, test, or similar service shall protect any construction exposed for or by the inspection or test, or any unfinished construction in the vicinity of the inspection or test. Upon completion of inspections, testing, and similar services, the Contractor responsible for that inspection, test, or similar service shall repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes.

# 1.04 SUBMITTALS

- A. The Contractor shall submit Qualifications Data for any Inspection and Testing Service that the Contractor plans to engage to perform inspections, testing, and similar services. Qualifications Data shall include proof of qualifications, in the form of a recent report on the inspection of the Inspection and Testing Service by a recognized authority.
- B. The Contractor shall submit a Schedule of Tests and Inspections, in tabular form, which includes the following:
  - 1. Technical Specification section number and title
  - 2. Description of inspection and/or test
  - 3. Identification of applicable standards
  - 4. Identification of inspection and/or test methods
  - 5. Number of inspections and tests required
  - 6. Time schedule or time span for inspections and tests
  - 7. Entity responsible for performing inspections and tests
  - 8. Requirements for obtaining samples
  - 9. Unique characteristics of each Quality Control Service
- C. The Contractor shall submit, for the University's records, copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- D. The Contractor shall submit to the University required reports of inspections, tests, and similar services. Reports from Inspection and Testing Services shall consist of a certified written report of each inspection, test, or similar service, and such reports shall be submitted through the Contractor to the University.
- E. The Contractor shall submit three (3) copies of any inspection or test report to the University. If the inspection or test was required by a governing authority, the Contractor shall submit additional copies of that inspection or test report directly to that governing authority.
- F. Reports of each inspection or test shall include, at a minimum, the following:
  - 1. Date of report
  - 2. Contract number and Project title
  - 3. Name, address, and telephone number of testing entity
  - 4. Identification of product and Technical Specification section
  - 5. Dates and locations of samples, tests, and inspections
  - 6. Names of individuals conducting the inspection or test
  - 7. Designation of the test method
  - 8. Complete inspection or test data
  - 9. Test results and an interpretation of test results
  - 10. Ambient conditions at the time of sampling and testing

- 11. Comments or professional opinion as to whether inspected or tested Work complies with Contract requirements
- 12. Recommendations on re-testing
- 13. Name and signature of authorizing individual

### 1.05 UNIVERSITY INSPECTIONS AND TESTS

- A. Inspections and tests which will be the responsibility of the University are identified in the various Technical Specification sections. These inspections and tests will be performed by an independent entity engaged by the University, or by the University's Professional, without expense to Contractor. The University reserves the right to change, at any time, the inspections and tests for which it will be responsible.
- B. Inspections and tests paid for by the University are for the sole benefit of the University. The inspection and test results will be available to the Contractor for his use. If the Contractor desires additional inspections and tests for his own quality control monitoring and purposes, the Contractor shall pay for those additional inspections and/or tests.
- C. The University, at its own expense, may perform any other Quality Control Services it deems necessary to supplement or verify the Contractor's Quality Control Services, and to supplement its Contract enforcement activities. The University may either utilize its Professional or employ a testing laboratory, consultant, or other qualified individual or firm to conduct these services.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 014500

## **SECTION 015000B**

#### **TEMPORARY FACILITIES AND CONTROLS**

#### PART 1 - GENERAL

#### 1.01 RESPONSIBILITIES

- A. The Lead Prime Contractor shall provide those temporary utilities, temporary construction and support facilities, and security and protection facilities which are common to the Work of all Separate Prime Contractors. Specific exceptions are noted throughout this Section.
- B. Each Separate Prime Contractor shall provide the remainder of his/her own temporary utilities, temporary construction and support facilities, and security and protection facilities required to perform his/her own Work.
- C. Unless the University requests that it be maintained longer, each temporary facility shall be removed when it is no longer required. Temporary facilities remaining after Substantial Completion shall only be allowed with the approval of the University.
- D. Any Contractor who fails to carry out his/her responsibilities as set forth in this Section shall be held responsible for such failure, and the University shall have the right to take such action as it deems proper for the protection of the Work, the Project site, and University property, and shall deduct the cost involved from the amount that Contractor is otherwise due.

#### 1.02 DEFINITIONS

- A. Common temporary utilities may include but are not limited to the following, if required:
  - 1. Water service and distribution
  - 2. Electric power and light
  - 3. Telephone service
- B. Common temporary construction and support facilities may include but are not limited to the following, if required:
  - 1. Environmental conditioning (heat, cooling, humidity control, and/or ventilation) necessary to allow the Work to be carried out without interruption and under the correct conditions
  - 2. Environmental enclosure/protection of the building as a whole
  - 3. Sanitary facilities and sanitary waste disposal services
  - 4. General waste collection and disposal services
  - 5. Field office
  - 6. Storage area
  - 7. Construction aids and miscellaneous services and facilities
- C. Security and protection facilities may include but are not limited to the following, if required:
  - 1. Site barricades, warning signs, warning lights, and traffic control for the site
  - 2. Site enclosure fence
  - 3. Temporary fire protection
  - 4. Environmental and site protection

# 1.03 INSTALLATION

A. The Lead Prime Contractor shall, in coordination with the other Separate Prime Contractors, prepare a site mobilization plan indicating the proposed number and location of office trailers, the location and dimensions of any storage trailers or storage area, the location and dimensions

- of any area to be fenced for use by the Contractors, and diagrams of routes of ingress/egress to the site and traffic control on the site. The site mobilization plan shall be submitted to the University for approval prior to mobilization on the site.
- B. Temporary utilities and facilities should be located where they will serve the Project and all Contractors adequately and result in minimum interference with performance of the Work. Temporary facilities and utilities should be relocated and modified as required as the Work progresses.
- C. Temporary utilities and facilities shall be installed and maintained in a manner acceptable to the University and in compliance with the appropriate code for such temporary installation and construction. Such codes and requirements may include requirements arising from building codes, safety and health regulations, utility company requirements, emergency services rules, and environmental protection regulations. Qualified people shall be used for the installation and maintenance of temporary facilities. Contractors shall arrange with the authorities having jurisdiction with respect to such codes and requirements for required inspections, certifications, and tests. The University may have requirements different from or in addition to those within this Section.

# 1.04 TEMPORARY UTILITIES

- A. The Lead Prime Contractor shall provide an adequate water supply for use by all Separate Prime Contractors in accomplishing the Work.
- B. The Electrical Contractor shall provide all common temporary electrical power and circuits and outlets, extended throughout the building, for use by all Separate Prime Contractors in accomplishing the Work. Service should not be less than 120/208 volts single phase. Each Separate Prime Contractor shall provide their own grounded electrical extension cords. If any Contractor requires multi-phase power, that Contractor shall be responsible for providing that power; but he/she shall coordinate his/her multi-phase power with the Electrical Contractor. The temporary electrical power system shall not be used for welding operations or for temporary heat.
- C. The Electrical Contractor shall provide all common temporary lighting for use by all Separate Prime Contractors in accomplishing the Work whenever overhead roof deck or flooring has been installed or is present, or when the work area otherwise has insufficient light to support proper construction operations.
- D. The responsible Contractor shall provide meters for and pay to the University for all costs for the consumption of temporary utilities. If any utilities are drawn directly off of the local provider's infrastructure, the responsible Contractor shall comply with the requirements of that provider and make payment directly to that provider.
- E. Any part or parts of permanent utility lines, grounds, and buildings, disturbed or damaged by the installation and/or removal of temporary utility lines shall be restored to their original condition.
- F. The Contractor shall coordinate with the University for a time when a utility can be interrupted, where necessary, to make connections for temporary services.
- G. The Contractor shall arrange for authorities having jurisdiction to inspect and test each temporary utility before use.
- H. Telephone, data, and other telecommunications services for temporary office and storage trailers shall be the responsibility of each Contractor.

## 1.05 TEMPORARY ENVIRONMENTAL CONDITIONING

- A. Prior to closure of the building, each Separate Prime Contractor shall provide, operate, and maintain, including providing fuel, to supply temporary heat to protect their own portion of the Work.
- B. Subsequent to closure of the building, the Lead Prime Contractor shall provide temporary heating and dehumidification required by construction activities inside the enclosed area.
- C. Temporary heating units shall have a UL rating and label. Self-contained oil-fired portable heaters, if used, shall be vented to outside of the structure. Electric resistance heating and gasoline-burning space heaters, open flame, or salamander-type heating units are not permitted.
- D. The permanent HVAC systems shall not be used to supply temporary heat and cooling except with approval of the University.

## 1.06 SANITARY FACILITIES

- A. The Lead Prime Contractor shall provide and maintain sanitary facilities.
- B. Sanitary facilities include temporary toilets, wash facilities, and drinking water facilities, provided with toilet tissue and similar disposable materials for each facility. Wash facilities, with cleaning products, shall be supplied with potable water at convenient locations. Safety showers and/or eye-wash fountains shall be provided, as necessary. Drinking water shall consist of bottled-water type drinking water units, with paper cups.

# 1.07 GENERAL WASTE COLLECTION AND DISPOSAL

- A. Each Contractor shall provide their own dumpsters for demolition materials, construction debris, and other waste materials. Hazardous, dangerous, or unsanitary waste materials shall be handled separately from other waste by containerizing properly, and shall be disposed of in a lawful manner. Containers shall be marked appropriately.
- B. Burying or burning waste materials on site is not permitted. Washing waste down sewers or into waterways is not permitted.

## 1.08 TEMPORARY OFFICES AND SHEDS

(Not Used)

# 1.09 CONSTRUCTION AIDS

- A. Each Separate Prime Contractor shall be responsible for any construction aids and facilities required to perform their own work.
- B. Contractors shall supply, erect, maintain, and operate scaffolding and hoisting facilities and equipment for their own use.
- C. Contractors shall supply, assemble, erect, and move into proper location, all derricks, hoists, lifting apparatus and similar equipment necessary for the execution and installation of their own work.
- D. Any Contractor requiring access to the roof shall erect a personnel elevator or ladders, external

to the building, for access to the roof.

- E. The operators of all equipment shall be properly licensed for equipment in use and shall be fully experienced in the safe operation of the equipment in use.
- F. Contractors shall comply with the terms, regulations, and conditions contained in the latest edition of the Pennsylvania Department of Labor and Industry Regulations for Construction and Repairs. Contractors shall also comply with OSHA requirements for construction aids and facilities.

# 1.10 TEMPORARY SECURITY AND PROTECTION

- A. The Lead Prime Contractor shall provide, install, and maintain necessary and proper barricades, warning signs, and lights to limit public access to the Project area.
- B. Prior to any construction operations beginning, the Lead Prime Contractor shall install a site enclosure fence. The fence shall be maintained around the perimeter of the site, and shall meet the requirements of the University.
- C. Each Separate Prime Contractor performing excavation and trenching shall be responsible for protection for his/her excavation or trench. Excavations and trenches shall not be open overnight or on weekends without the University's permission.

# 1.11 TEMPORARY FIRE PROTECTION

- A. The Lead Prime Contractor shall install and maintain temporary fire extinguishers of the types needed to protect against reasonably predictable and controllable fire losses.
- B. Each Separate Prime Contractor shall provide additional fire extinguishers of the types needed for specific work or equipment requiring dedicated fire protection.

# 1.12 TEMPORARY ENVIRONMENTAL CONTROLS

- A. The General Construction Contractor, or the Lead Prime Contractor if there is no General Construction Contractor, shall be responsible for overall environmental protection of the Project site. All Separate Prime Contractors shall be responsive to the General or Lead Contractor for establishment and maintenance of environmental protection, and all Separate Prime Contractors shall be responsible for environmental protection relative to their own Work.
- B. Contractors shall be responsible for any fuel storage and dispensing operations, and any equipment storage and servicing operations, that they establish and operate. Fuel, lubricants, and oil and their related operations shall be managed in accordance with all Federal, Commonwealth, and local laws and regulations.
- C. Contractors shall provide protection for the construction in progress and completed construction. Protection shall be from exposure, foul weather, moisture, fumes, dust and dirt, and other conditions detrimental to the Work.
- D. Contractors shall provide, as required, protection for existing facilities. Protection shall protect ongoing University operations, personnel, and property from dust, dirt, noise, fumes, and danger from construction operations.
- E. Grass located within the boundaries of the construction site shall be mowed for the duration of the project.

F. The General Prime Contractor shall, upon completion of the Work and after removal of trailers, materials, and equipments, restore the site to the original condition.

# 1.13 MISCELLANEOUS CONTROLS

- A. Immediately upon beginning of the Work, the Lead Prime Contractor shall provide a location, easily accessible to all employees and visitors, for displaying all required Equal Employment Opportunity, Labor & Industry, OSHA, and similar documents and posters.
- B. Contractors will be required to use the access and haul routes shown on the plans, unless otherwise permitted in writing by the University. When access or haul routes are not designated on the plans, Contractors must obtain approval from the University for any routes on campus that they intend to use.
- C. During construction the Lead Prime Contractor shall provide access and temporarily relocated roads and sidewalks as necessary to maintain vehicle and personnel traffic.
- D. The Lead Prime Contractor shall maintain the Project site free of waste materials and debris on a daily basis. The University reserves the right to require substantial clean-up of the project site, during the course of the work, for any scheduled special events at no additional increase in Contract cost or time.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION 015000B

# **SECTION 016000**

## PRODUCT REQUIREMENTS

## PART 1 - GENERAL

## 1.01 DEFINITIONS

- A. Definitions used in this Section are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
- B. Products are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously-purchased stock. Within this Section, the term Product shall include material, equipment, system, and terms of similar intent.
- C. Named Products are items identified by a manufacturer's product name, including make and model designation, and indicated in the manufacturer's published product literature that is current as of the date of the Contract Documents.
- D. Foreign Products are distinguished from Domestic Products, except where defined in the General Conditions.
- E. Materials are Products that are substantially shaped, cut, worked, mixed, finished, refined, or otherwise fabricated, processed, or installed to form a part of the Work.
- F. Equipment is a Product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping, to be incorporated into or as part of the Work.

# 1.02 PRODUCT SELECTION

- A. The Contractor shall provide Products that meet or exceed the quality specified in the Contract Documents, and that are new, undamaged, and unused at the time of installation, unless otherwise allowed. The Contractor shall produce, upon request, evidence supporting the source of materials used in the Work.
- B. Products shall be provided complete with all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and for the intended use and effect.
- C. Standard Products, or types of standard Products, that have been produced and used successfully in similar situations on other projects, shall be provided, when available.
- D. To the fullest extent possible, Products of the same kind from a single source shall be provided.
- E. When the Contractor is given the option of selecting between two or more Products for use on the Project, the Product selected shall be compatible with Products previously selected, even if previously-selected Products were also options.
  - 1. Each Separate Prime Contractor is responsible for providing Products that are compatible and coordinated with Products of other Separate Prime Contractors.

2. If a dispute arises between Separate Prime Contractors over concurrently-selected and incompatible Products, the University will determine which Products shall be retained and which Products must be replaced.

# F. Product Specification Types.

- 1. Proprietary Specification: Where the Contract Documents specifically state that a single Product, manufacturer, and applicable model number has been approved as a proprietary item by the Contracting Officer, the Contractor shall provide only that Product. No substitution will be permitted.
- 2. Non-Proprietary Specification: Where the Contract Documents identify two or more Products, listing the manufacturers and applicable model numbers, the Contractor shall provide one of those named Products, unless a Product substitution has been approved and issued as an addendum during the bidding period or under the procedures listed in Specification Section 016200, Product Options.
- 3. Design Specification: Where the Contract Documents describe a Product, listing exact physical characteristics required, with or without use of a brand or trade name, the Contractor shall provide a Product that provides the required characteristics and which otherwise complies with the Contract requirements.
- 4. Performance Specification: Where the Contract Documents describe performance requirements for a Product, the Contractor shall provide a Product that meets or exceeds the required performance and is recommended by the manufacturer for the application indicated, and which otherwise complies with the Contract requirements.
- Compliance with Standards, Codes, and Regulations: Where the Contract Documents only require compliance with an imposed code, standard, or regulation, the Contractor shall provide a Product that complies with those requirements, and which otherwise complies with the Contract requirements.

# G. Visual Criteria.

- 1. Where the Contract Documents require matching an established sample, the University's decision will be final as to whether a proposed Product satisfactorily matches the sample.
- 2. Where there is no Product available in the specified category that satisfactorily matches the sample and which complies with other Contract requirements, the Contractor shall comply with procedures listed in Specification Section 016200, Product Options, for selection of a substitute Product.
- H. Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures...," or a similar phrase, the Contractor shall select a Product and manufacturer that complies with other Contract requirements. The University will select the color, pattern, and texture from the product line selected.
- I. Refer to the Contract Special Requirements for Foreign Product Limitations.

## 1.03 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Products shall be delivered, stored, and handled in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, or loss, including theft.

- B. Delivery shall be scheduled to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
- C. The University will not accept delivery of Products on behalf of the Contractor.
- D. Delivery shall be coordinated with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, or other losses.
- E. Products shall be delivered to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- F. Products shall be inspected upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected. Damaged and defective items shall be rejected.
- G. Products shall be stored at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
- H. Heavy materials shall be stored away from the Project structure in a manner that will not endanger the supporting construction.
- I. Products subject to damage by the elements shall be stored above ground and under cover or in a weather-tight enclosure with ventilation adequate to prevent condensation. Temperature and humidity shall be maintained within a range required by the manufacturer's instructions.

## 1.04 INSTALLATION OF PRODUCTS

- A. The Contractor shall inspect both the substrate and conditions under which work is performed. Installation shall not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Measurements and dimensions shall be verified and re-checked before starting each installation.
- C. Products shall be installed in a manner that complies with manufacturer's instructions and recommendations for the applications indicated. If manufacturer's instructions and recommendations are more explicit or stringent than requirements contained in the Contract Documents, the manufacturer's instructions and recommendations shall take precedence.
- D. Where mounting heights are not indicated, individual Products shall be installed at standard mounting heights recognized within the industry for the particular application indicated. Questionable mounting height decisions shall be referred to the University for final decision.
- E. Products shall be anchored securely in place, and shall be accurately located and aligned with other Work. Attachment and connection devices and methods necessary for securing work shall be used. Work shall be secured true to line and level, and there shall be allowances for expansion and building movement.
- F. Joint widths in exposed work shall be uniform, and shall be arranged to obtain the best visual effect. Questionable choices shall be referred to the University for final decision.
- G. Products shall be installed during weather conditions and project status that will ensure the best possible results. Each part of the completed construction shall be isolated from incompatible material as necessary to prevent deterioration.

- H. The use of temporary enclosures shall be coordinated with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.
- I. Exposed surfaces shall be cleaned and protected as necessary to ensure freedom from damage or deterioration at time of Substantial Completion.
- J. Name Plates.
  - 1. Except for required labels and operating data, manufacturer's or producer's nameplates or trademarks shall not be attached or imprinted on surfaces of products that will be exposed to view in occupied spaces or from the exterior.
  - 2. Required product labels and stamps shall be located on a concealed surface. When required for observation after installation, required labels and stamps shall be located on an accessible surface that is not conspicuous.
  - 3. A permanent nameplate shall be provided on each item of service-connected or power-operated equipment. The nameplate shall be located on an easily-accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain at least the following information and other essential operating data, as applicable:
    - a. name of product and manufacturer
    - b. model and serial number
    - c. capacity
    - d. speed
    - e. ratings

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# SECTION 016200 PRODUCT OPTIONS

## PART 1 - GENERAL

## 1.01 DEFINITIONS

- A. The Definitions used throughout this Section are not intended to change or modify the meaning of other terms used elsewhere throughout the Contract.
- B. Products shall include products, materials, equipment, or methods of construction.
- C. Request For Substitution is a proposal made by the Contractor after the award of the Contract for changes in Products required by Contract Documents.
- D. The following are not considered to be Substitutions that are subject to this Section:
  - 1. Substitutions requested by Bidders during the bidding period. If accepted, those substitutions will be published in an addendum to the solicitation and considered to be included in the Contract Documents. Those substitutions are not subject to the requirements of this Section.
  - 2. Revisions to the Contract Documents requested by the University after award of the Contract.
  - 3. Specified options of Products included as such in the Contract Documents.
  - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

# 1.02 REQUESTS FOR SUBSTITUTION

- A. Requests For Substitution shall use the procedures for Submittals. Specification Section 013300, Submittal Procedures, specifies administrative and procedural requirements for submittals.
- B. Requests for Substitution should be made in a timely manner. The Request should allow reasonable time for the University to review and make a decision on the Substitution without impacting the progress of the Work.
- C. The Request for Substitution should identify the Product to be replaced, with the specific Technical Specification section and/or drawing numbers. Supporting documentation should be provided which shows compliance with the requirements for Substitutions and the following information, as appropriate:
  - 1. Product Data, including drawings and descriptions of products, fabrication and installation procedures.
  - 2. Samples, where applicable or requested.
  - Detailed comparison of significant qualities of the proposed Substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance, and visual effect.

- 4. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed, including by other Separate Prime Contractors, that will become necessary to accommodate the proposed Substitution.
- 5. A statement indicating the Substitution's effect on the Construction Schedule compared to the schedule without approval of the Substitution, including the effect, if any, of the Substitution on overall Contract Time.
- 6. Cost information, including a proposal of the net change, if any, in the Contract Price.
- 7. Certification by the Contractor, including the following:
  - a. certification and evidence that the proposed Substitution is equal to or better than, in every significant respect, the item required by the Contract Documents,
  - b. certification and evidence that the proposed Substitution will perform adequately in the application indicated, and
  - c. waiver of rights to additional payment or time that may subsequently become necessary if the Substitution fails to perform adequately.
- D. In all cases, the Contractor must provide a Substitution that meets any stated salient features or performance criteria listed in the Technical Specifications.

## 1.03 ACTIONS ON REQUESTS FOR SUBSTITUTION

- A. A Request For Substitution which is incomplete or does not comply with the requirements in paragraph 1.02 above will be returned to the Contractor without action, except to record noncompliance with these requirements.
- B. If a decision on the use of a proposed Substitution cannot be made in a timely manner, the Contractor shall use the specified Product.

# 1.04 FACTORS FOR CONSIDERATION OF A SUBSTITUTION

- A. The Contractor's Request For Substitution will be reviewed by the University and may be considered favorably if all of the following conditions are satisfied, as determined by the University.
  - Extensive revisions to Contract Documents, the Contract Price, or the Contract Time are not required.
  - 2. Proposed changes are in keeping with the general intent of Contract Documents.
  - 3. The Request is timely, fully documented, and properly submitted.
- B. In addition to the conditions in paragraph 1.04 A. above, at least one of the following conditions must also be satisfied, as determined by the University.
  - 1. The specified Product cannot be provided without impact to the Contract Time. The proposed Substitution will not be considered if the Product cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
  - 2. The specified Product cannot receive necessary approval by a governing authority, and the proposed Substitution can be approved.

- 3. The specified Product cannot be provided in a manner that is compatible with the rest of the Work and its materials, and where the Contractor certifies that the proposed Substitution will overcome the incompatibility.
- 4. The specified Product cannot be coordinated with the rest of the Work and its materials, and where the Contractor certifies that the proposed Substitution can be coordinated.
- 5. The specified Product cannot be warranted as required by the Contract Documents, or the specified Product adversely affects a warranty or another Product or system, and the Contractor certifies that the proposed Substitution can fulfill the required warranty requirements.
- 6. The Substitution results in a substantial advantage to the University, in terms of cost, time, energy conservation, or other considerations of merit, after deducting offsetting responsibilities that the University may be required to bear. Additional responsibilities for the University may include additional compensation to the Professional for redesign and evaluation services, increased cost of other construction by the University or other Separate Prime Contractors, and similar considerations.
- C. The University will make a determination if the Substitution can be coordinated with all other Separate Prime Contractors. Where a proposed Substitution involves more than one Separate Prime Contractor, the Contractor proposing the Substitution shall coordinate the Work with the other Separate Prime Contractors involved, to provide uniformity and consistency, and to assure compatibility of products.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# **SECTION 017123**

## FIELD ENGINEERING

#### PART 1 - GENERAL

# 1.01 RESPONSIBILITIES

- A. To perform any Land Surveying required for the Project, the General Construction Contractor shall engage a Professional Land Surveyor registered in the Commonwealth of Pennsylvania. If there is no General Construction Contractor, the Lead Prime Contractor shall have the responsibility.
- B. To perform any Engineering Land Surveys required for the Project, the General Construction Contractor shall engage either a Professional Land Surveyor registered in the Commonwealth of Pennsylvania, or a Professional Engineer registered in the Commonwealth of Pennsylvania. If a Professional Engineer is to be used, he shall be competent in Engineering Land Surveys, and the Contractor shall provide to the University evidence of that competence. If there is no General Construction Contractor, the Lead Prime Contractor shall have the responsibility.
- C. To perform other field engineering services as required or specified, each Separate Prime Contractor shall engage a Professional Engineer registered in the Commonwealth of Pennsylvania. The Professional Engineer shall be of the discipline required or specified, and shall be competent in the services required or specified. The Contractor shall provide to the University evidence of the Professional Engineer's competence.

#### 1.02 SURVEY CONTROL DATA

- A. The Contract Documents will identify existing reference points, such as benchmarks, control points, and property line corner stakes. If it is missing, the University will provide this data.
- B. Before proceeding to layout the work, the Contractor shall verify layout information shown on the drawings in relation to the property survey and existing reference points. The Contractor shall locate and protect existing reference points.
- C. Permanent reference points shall be preserved during construction. If necessary in the prosecution of the work, relocations and replacements shall be executed in accordance with the following requirements.
  - 1. Permanent reference points shall not be changed or relocated without prior written approval from the University.
  - 2. Requests to relocate reference points because of necessary changes in grades or locations shall be made in a timely manner so as not to impact the Work.
  - 3. Lost or destroyed permanent reference points shall be promptly reported. Replacements shall be based on the original survey reference points.
- D. The Contractor shall establish and maintain a minimum of two permanent reference points on the site, referenced to data established by original survey reference points. Record of the reference points shall be established and recorded on project record documents with horizontal and vertical data.

# 1.03 SURVEY PROCEDURES

- A. Working from lines and levels established by the property survey, the Contractor shall establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project.
  - 1. For site improvements, including pavements, stakes for grading, fill, and topsoil placement, and utility slopes and invert elevations, the Contractor shall locate and lay out the Work by instrumentation and similar appropriate means.
  - 2. For building work, the Contractor shall locate and lay out, by instrumentation and similar appropriate means, building foundations, column grids and locations, floor levels, control lines, and any reference points required for mechanical, plumbing, and electrical work.
  - 3. Required dimensions shall be calculated and measured within indicated or recognized tolerances. Scaled drawings should not be measured to determine dimensions.
  - 4. As construction proceeds, every major element shall be checked for line, level, and plumb.
  - 5. Other Separate Prime Contractors and entities engaged in the Work shall be advised of reference points and marked lines and levels provided.
- B. The Contractor shall maintain a surveyor's log of control and other field survey work. The log shall be made available for reference to the University and other Separate Prime Contractors and appropriate entities.
- C. The University shall be advised when deviations that exceed indicated or recognized tolerances are detected. The surveyor's log shall record deviations from required lines and levels. Project record drawings shall indicate record deviations that are accepted and not corrected.

# 1.04 CERTIFICATION OF SURVEY

At the completion of the Project, the Contractor shall submit to the University the following items:

- A. A certificate signed by the Land Surveyor or Professional Engineer certifying that the location and elevation of the Work complies with the Contract Documents
- B. A record of work performed and record survey data

# 1.05 UTILITIES

- A. The existence and location of underground and other utilities and construction indicated on the Contract Documents as existing are not guaranteed. Before beginning sitework, the Contractor shall investigate and verify the existence and location of underground utilities and other construction, and the locations and invert elevations at points of connection of sanitary sewer, storm sewer, and water service piping.
- B. The Contractor shall furnish all information necessary to adjust, move, or relocate existing structures, utility poles, lines, services, or other appurtenances located in or affected by the Work. The Contractor shall coordinate with local authorities having jurisdiction.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# **SECTION 017329**

# **CUTTING AND PATCHING**

#### PART 1 - GENERAL

## 1.01 RESPONSIBILITIES

- A. If the Project involves a General Construction Contractor, the General Construction Contractor shall be responsible for the cutting of openings with area equal to or greater than thirty-six (36) square inches. The cutting of openings with area less than thirty-six (36) square inches shall be the responsibility of the Separate Prime Contractor whose work requires the cutting. The General Construction Contractor shall be responsible for all patching work, regardless of the size of the opening.
- B. If the Project does not involve a General Construction Contractor, cutting and patching shall be the responsibility of the Separate Prime Contractor whose work requires the cutting. The Contractor shall employ competent individuals, approved by the University, to do the cutting and patching.
- C. If the cutting of openings into newly constructed walls, partitions, floors, or ceilings is required due to lack of coordination between Separate Prime Contractors, or due to ill-timed or defective work by one or more Separate Prime Contractors, the Separate Prime Contractor primarily responsible for the lack of coordination or the ill-timed or defective work shall bear all costs involved in cutting and patching. The University may direct the General Construction Contractor to actually perform the cutting and patching.

## 1.02 SUBMITTALS

- A. When cutting and patching procedures are required to be approved prior to the work, the Contractor shall submit a plan for cutting and patching well in advance of the work. The submittal shall describe the procedures and request approval to proceed. The submittal shall include the following, as applicable.
  - A description of the limits of cutting and patching required, how it is to be performed, and why
    it cannot be avoided.
  - 2. A description of the anticipated results in terms of changes to existing construction, including changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
  - 3. A listing of products to be used and firms or entities that will perform work.
  - 4. Identification of the dates when cutting and patching is to be performed.
  - Identification of any utilities that will be distributed or affected, including those that will be relocated and those that will be temporarily out of service, and an indication of how long service will be disrupted.
  - 6. Where cutting and patching involves addition of reinforcement to structural elements, details and engineering calculations to show how reinforcement is integrated with the original structure.

B. Approval by the University to proceed with cutting and patching does not waive the right of the University to later require complete removal and replacement of any part of the work found to be unsatisfactory.

## 1.03 MATERIALS

- A. Materials used shall be identical to existing materials.
- B. If identical materials are not available or cannot be used where exposed surfaces are involved, materials used shall match existing adjacent surfaces to the fullest extent possible with regard to visual effect.
- C. All materials used shall have installed performance equal or greater than that of existing materials.
- D. All materials used shall be compatible with adjacent existing materials and shall have no deleterious effect on the existing construction.

## 1.04 INSPECTION

- A. Before cutting existing surfaces, the Contractor shall examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
- B. The Contractor shall avoid any unsafe or unsatisfactory conditions, and if unsafe or unsatisfactory conditions are encountered, corrective action shall be taken before proceeding.

## 1.05 PREPARATION

- A. Work to be cut shall be provided with temporary support.
- B. Existing construction shall be protected during cutting and patching to prevent damage by cutting and patching operations.
- C. Protection from adverse weather conditions shall be provided for portions of the project that might be exposed during cutting and patching operations.
- D. Cutting and patching operations shall be conducted so as to avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- E. The Contractor shall take all precautions necessary to avoid cutting existing pipe, conduit, or ductwork that serve the facility and are scheduled to be removed or relocated, until provisions have been made for bypass installations.

# 1.06 PERFORMANCE, GENERAL

- A. Skilled workmen shall be employed to perform cutting and patching.
- B. Cutting and patching shall be undertaken at the earliest feasible time and completed without delay.
- C. Cutting, fitting, and patching for installation of components or the performance of other construction activities shall be performed so as to restore surfaces to their original condition.
- D. Openings shall be temporarily covered when not in use.

- E. Where excavating and backfilling are required, the Contractor shall comply with requirements of applicable sections of the Technical Specifications.
- F. For utility services shown or required to be removed, relocated, or abandoned, the Contractor shall ensure the utility service is shut off or not active prior to performing any work on the system. If the utility service requires continued operation during the Work, the Contractor shall by-pass the service before cutting service pipe or conduit. Any pipe or conduit that is to remain shall be sealed with a cap, valve, or plug to prevent entrance of moisture or other foreign matter.

# 1.07 PERFORMANCE, CUTTING

- A. Cutting of existing construction shall be performed using methods least likely to damage elements to be retained or adjoining construction. Where possible, proposed procedures shall be reviewed with the original installer and shall comply with the original installer's recommendations.
- B. Where cutting is required, hand or small power tools designed for sawing or grinding shall be used. Hammering and chopping shall not be done. Holes and slots shall be cut neatly to the size required with minimum disturbance of adjacent surfaces.
- C. To avoid marring existing finished surfaces, cutting or drilling shall be done from the exposed or finished side into concealed surfaces.
- D. A cutting machine such as a carborundum saw or diamond core drill shall be used to cut through concrete and masonry.

# 1.08 PERFORMANCE, PATCHING

- A. Patching shall be performed with durable seams that are as invisible as possible. Patching shall meet specified tolerances.
- B. Where feasible, patched areas shall be inspected and tested to demonstrate integrity of the installation.
- C. Exposed finishes of patched areas shall be restored, and finished restoration shall be extended into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
- D. Where patching occurs in a smooth painted surface, the final paint coat shall be extended over entire wall plane (wall corner to corner) containing the patch. The patched area itself shall receive a primer and second coat.
- E. Where the removal of walls or partitions extends from the new space into another existing space, the floor and wall surfaces in the new space shall be patched and repaired to provide an even surface of uniform color and appearance. If uniform color and appearance cannot be achieved, the existing floor and wall coverings in the existing space shall be removed and replaced with new materials.
- F. Existing ceilings shall be patched, repaired, or re-hung as necessary to provide an even plane surface of uniform appearance.

# 1.09 COORDINATION

- A. Structural elements shall not receive any cutting and patching that would reduce their load-carrying capacity or load-deflection ratio. Structural elements include:
  - 1. Foundation construction
  - 2. Bearing and retaining walls

- 3. Structural concrete
- 4. Structural steel
- 5. Lintels
- 6. Structural decking
- 7. Stair systems
- 8. Miscellaneous structural metals
- 9. Exterior curtain wall construction
- 10. Equipment supports
- 11. Piping, ductwork, vessels, and equipment
- 12. Structural systems of Special Construction in the Technical Specifications
- B. Safety-related components and operating elements shall not receive cutting and patching in a manner that would result in reducing their capacity to perform as intended, result in increased maintenance, or result in decreased operational life or safety. For those components and elements covered by a warranty, the Contractor shall coordinate cutting and patching with the warranting party, and the cutting and patching shall not void the warranty. Safety-related components and operating elements include:
  - 1. Shoring, bracing, and sheeting
  - 2. Primary operational systems and equipment
  - 3. Air or smoke barriers
  - 4. Water, moisture, or vapor barriers
  - 5. Membranes and flashings
  - 6. Roofing systems and membranes
  - 7. Fire protection systems
  - 8. Noise and vibration control elements and systems
  - 9. Control systems
  - 10. Communication systems
  - 11. Conveying systems
  - 12. Electrical wiring systems
  - 13. Special Construction specified in the Technical Specifications
- C. Visually-exposed components and construction that is exposed on the exterior or exposed in occupied spaces shall not receive cutting and patching in a manner that will reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. If possible, the original installer or fabricator shall be retained to cut and patch the following categories of exposed work:
  - 1. Processed concrete finishes
  - 2. Ornamental metal
  - 3. Matched-veneer woodwork
  - 4. Window wall system
  - 5. Stucco and ornamental plaster
  - 6. Acoustical ceilings
  - 7. Carpeting
  - 8. HVAC enclosures, cabinets, or covers

If it is not possible to engage the original installer or fabricator, another recognized, experienced, and specialized firm shall be engaged. For those components and construction covered by a warranty, the Contractor shall coordinate cutting and patching with the warranting party, and the cutting and patching shall not void the warranty.

D. The General Construction Contractor shall be responsible for removing, storing, and replacing removable ceilings where work is to be provided above an existing removable ceiling not indicated for replacement.

# 1.10 CLEANING AND RESTORATION

A. Thorough cleaning shall be performed for areas and spaces where cutting and patching is performed or used as access.

General Requirements for 71-FA-8.1 Contract No. ESU 30-2107

- B. Paint, mortar, oils, putty, and items of similar nature shall be completely removed.
- C. Piping, conduit, and similar features shall be thoroughly cleaned before painting or other finishing is applied.
- D. Pipe covering and insulation damaged incidental to cutting and patching shall be restored to its original condition.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# **SECTION 017700**

## **CLOSEOUT PROCEDURES**

## PART 1 - GENERAL

## 1.01 SUBSTANTIAL COMPLETION INSPECTION

- A. Substantial Completion is when the Work is sufficiently completed in accordance with the Contract and certified by the University, as modified by change orders, so that the project can be used, occupied, or operated for its intended use. In no event shall a project be certified as substantially complete until at least ninety percent (90%) of the Work on the project is complete. The University reserves, at its sole discretion, the right to certify substantial completion for portions of the project.
- B. Each Separate Prime Contractor is responsible for requesting and executing a Substantial Completion inspection. Maximum coordination between the various Separate Prime Contractors is strongly encouraged for the execution of Substantial Completion inspections.
- C. Before a Substantial Completion inspection can be held, the following items shall have been completed by the Contactor and/or been submitted to the University.
  - 1. completion of start-up, testing, and commissioning checks of equipment and systems
  - 2. completion of user training
  - 3. completion of Contract Work
  - 4. completion of final cleaning
  - 5. removal of temporary protection and facilities
  - 6. removal of construction tools, mock-ups, and similar elements
  - 7. removal of surplus materials, rubbish, and similar elements
  - 8. change to permanent locks, and submission of keys
  - 9. submission of testing, test and balance, and commissioning reports
  - 10. submission of Operating and Maintenance Manuals and Instructions
  - 11. submission of Record Documents
  - 12. submission of warranty documents and warranty plan
  - 13. submission of spare parts, tools, extra stock, and similar required items
  - 14. submission of final meter readings, and measured record of stored fuel(s) (if any)
  - 15. submission of or coordination for Occupancy permits (UCC)
  - 16. submission of or coordination for other permits and approvals (boiler inspection, etc.)
- D. The Contractor shall submit to the University a written request for a Substantial Completion inspection. The request shall certify that the items required for a Substantial Completion inspection (paragraph 1.01 C.) have been completed, or shall identify when they will be completed or explain reasons why items will not be complete. The request shall be submitted at least seven (7) days prior to the requested date for the inspection, unless otherwise specified or agreed upon.
- E. Within seven (7) days of receipt of a request for a Substantial Completion inspection, unless otherwise specified or agreed upon, the University will either proceed with the inspection, schedule the inspection to take place within a reasonable period of time, or advise the Contractor of requirements that must be met before the Project can be considered ready for a Substantial Completion inspection.
- F. Upon inspection, the University will either issue the Certificate of Substantial Completion, advise the Contractor of items that must be completed or corrected before the Certificate will be issued, or advise the Contractor that another Substantial Completion inspection must be requested and take place.

# 1.02 FINAL COMPLETION AND FINAL COMPLETION INSPECTION

- A. Final Completion is that point in the Contract at which all Work on the Project is complete, and all other Contract requirements have been completed. Final Completion may or may not involve an inspection.
- B. Each Separate Prime Contractor is responsible for requesting Final Completion. Coordination between the various Separate Prime Contractors is encouraged for the execution of any Final Completion inspections that may be required.
- C. Before the Contractor can request Final Completion, the following items shall have been completed by the Contactor and/or been submitted to the University.
  - 1. completion of punchlist items
  - 2. completion of all items required for Substantial Completion (paragraph 1.01)
  - 3. completion of any and all other Contract requirements
- D. The Contractor shall submit to the University a written request for Final Completion. The request shall certify that the items required for Final Completion (paragraph 1.02 C.) have been completed. If an inspection is required, the request shall be submitted at least seven (7) days prior to the requested date for the inspection.
- E. Upon receipt of a request for Final Completion, the University will either issue the Certificate of Final Completion or advise the Contractor of requirements that must be met before the Project can be considered ready for Final Completion.
- F. When the University issues the Certificate of Final Completion, the Final Application for Payment can be processed.

# 1.03 FINAL CLEANING AND PREPARATION OF THE FACILITY

A. The following paragraphs address final cleaning and preparation generally applicable to most Contracts. Additional or specific requirements applicable to this Contract may be included in Specification Section 011000, Summary, in specific Technical Specification sections, or in a dedicated Section on Final Cleaning and Preparation.

## B. Cleaning.

- 1. The Contractor shall employ experienced workers or professional cleaners for final cleaning. Workers shall be supervised.
- 2. Each surface, equipment, or unit shall be cleaned to the condition expected in a normal, commercial building cleaning and maintenance program.
- 3. Transparent materials, including mirrors and glass in doors and windows, shall be cleaned. Glazing compound and other substances that are noticeable vision-obscuring materials shall be removed. Chipped or broken glass and other damaged transparent materials shall be replaced. Windows and two-sided glass shall be cleaned on both sides.
- 4. Exposed exterior and interior hard-surfaced finishes shall be cleaned to a dust-free condition, free of stains, films, and similar foreign substances. Reflective surfaces shall be restored to their original reflective condition. Concrete floors shall be broom clean. Finished floors shall be clean wet-mopped. Carpeted surfaces shall be vacuumed.

- 5. Surfaces of mechanical and electrical equipment shall be wiped to remove excess lubrication and other substances. Plumbing fixtures shall be cleaned to a sanitary condition. Light fixtures, lamps, switches, and outlet plates shall be cleaned. Construction bulbs shall be replaced with new bulbs.
- 6. The site, including landscape development areas, shall be cleaned of rubbish, litter, and other foreign substances. Paved areas shall be broom clean, and all stains, spills, and other foreign deposits shall be removed. Grounds that are neither paved nor planted shall be raked to a smooth even-textured surface.
- 7. Debris shall be removed from roofs, drainage systems, gutters, and downspouts.
- 8. The inside of cabinets and other concealed areas shall be cleaned.
- 9. Labels that are not permanent labels shall be removed.
- 10. In all cases the Contractor shall comply with manufacturer's instructions for cleaning and preparation, and with regulations of authorities having jurisdiction and safety standards for cleaning.

# C. Other Preparation.

- 1. Filters of operating equipment shall be replaced. Strainers of operating equipment and/or systems shall be cleaned. Ducts, blowers, coils, and similar components shall be cleaned if the system was operated during construction without filters.
- 2. The Contractor shall engage an experienced exterminator to make a final inspection, and rid the Project of rodents, insects, and other pests.
- 3. The Contractor shall remove temporary protection and facilities installed for protection of the Work, workers, and the general public during construction.
- 4. Waste or excess materials and debris shall be removed from the site and disposed of in a lawful manner. Such materials shall not be burned, and shall not be buried on University property. Volatile, harmful, or dangerous materials shall not be discharged into drainage systems or onto or into the ground.
- 5. The Contractor shall arrange with the University for disposition of excess materials of value that remain after completion of Work and become University property.

# 1.04 RECORD DOCUMENTS

See Specification Section 017836, Project Record Documents.

# 1.05 OPERATION AND MAINTENANCE MANUALS

See Specification Section 017823, Operation and Maintenance Data.

# 1.06 USER TRAINING

A. The following subparagraphs address general User Training requirements. The requirements for User Training, and any additional or specific requirements related to that User Training, is identified and included in specific Technical Specification sections.

- B. Each Separate Prime Contractor shall arrange for and perform User Training for any equipment or system installed by that Contractor. Where equipment and systems involve more than one Separate Prime Contractor, the University will designate one Contractor as the lead for the Training. The Lead shall coordinate with the other Separate Prime Contractors involved, and all Contractors shall participate in the Training.
- C. User Training shall provide to the University's operating and maintenance personnel instruction in proper operation and maintenance or that equipment or system.
- D. User Training shall be held at mutually agreed upon times and locations. Unless impossible or impractical, Training should be held at the location of the equipment or the system.
- E. For equipment or systems that require seasonal operation, separate Training sessions may be required at appropriate times.
- F. The Contractor shall engage for the Training instructors who are thoroughly trained and experienced in the operation and maintenance of the equipment or system involved. The instructors should come from the installers or from the manufacturer.
- G. Draft Operating and Maintenance Manuals shall be available for User Training, and shall be used as the basis of the Training.
- H. The Contractor shall videotape or digitally record the User Training, in a format suitable to the University. One (1) copy shall be provided with the Operating and Maintenance Manual.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# **SECTION 017823**

## **OPERATION AND MAINTENANCE DATA**

#### PART 1 - GENERAL

## 1.01 TYPES OF O&M MANUALS

- A. Equipment and Systems Manuals shall be provided for plumbing, HVAC, controls, electrical, fire protection, fire alarm, elevators, and special operating equipment and systems.
- B. Architectural Products Manuals shall be provided for care and maintenance of architectural products, including applied materials and finishes.
- C. Moisture Protection and Weather-Exposed Products Manuals shall be provided for instructions on inspection, maintenance and repair of products exposed to the weather or designed for moisture-protection purposes.
- D. General Products Manuals shall be provided for data and maintenance instructions for those products that are not assigned to one of the other manuals defined in this Section.
- E. The specific requirements for Manuals are identified in the Technical Specifications.

## 1.02 GENERAL REQUIREMENTS

- A. Each Separate Prime Contractor shall prepare Manuals for its own installations. For joint installations by the General Construction Contractor and another Separate Prime Contractor, the General Construction Contractor shall prepare and submit the Manuals. For joint installations by more than one Separate Prime Contractor other than the General Construction Contractor, the Contractor who is the principal source of information shall prepare and submit the Manuals. In the case of disagreement about which Contractor is the principal source, the University will make a determination.
- B. Unless otherwise approved or directed by the University, each Prime Contractor shall consolidate all Manuals of the different types (types identified in paragraph 1.01) into a single Manual and submittal. The Manual may have more than one volume, depending on the complexity of the system(s) or product(s).
- C. For preparation of Manuals, the Contractor shall use personnel thoroughly trained and experienced in operating and maintenance of the equipment or system involved. Where written instructions are required, the Contractor shall use personnel skilled in technical writing to the extent necessary for communication of essential data. Where drawings or diagrams are required, the Contractor shall use draftsman capable of preparing drawings clearly in an understandable format.

## 1.03 SUBMITTALS

A. Manuals shall be submitted prior to Substantial Completion. In certain circumstances, the University may allow separate Manuals to be submitted for different equipment, systems, products, or components as soon as that equipment, system, product, or component involved is installed, and tested if appropriate, and determined to be acceptable by the University.

- B. The Contractor shall submit one (1) Draft O&M Manual to the University. After review by the University and/or the Professional, the University will return the Manual with any corrections to be made. The Contractor shall make necessary corrections and submit the required number, as identified below, or another number specified by the University, of Final O&M Manuals to the University.
  - 1. Equipment and Systems Manuals: three (3) copies
  - 2. Architectural Products Manuals: two (2) copies
  - 3. Moisture Protection and Weather-Exposed Products Manuals: two (2) copies
  - 4. General Products Manuals: two (2) copies
- C. In certain cases, the Contractor and the University may agree that an O&M Manual, or a copy of an O&M Manual, may be prepared and submitted in an electronic format suitable to both the Contractor and the University.
- D. For equipment or systems requiring User Training, a Draft O&M Manual for that equipment or system shall have been complete and shall be provided at the Training.

## 1.04 O&M MANUAL ORGANIZATION

- A. Manuals shall be prepared in the form of an instructional manual for use by University operating and maintenance personnel.
- B. Manuals shall be prepared in heavy-duty, commercial-quality, durable, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2" by 11" paper. The binder spine shall provide a clear plastic sleeve to hold labels identifying the contents. The inside cover of the binder shall provide a pocket to receive additional or folded sheets.
- C. When information for the Manuals is of significant volume, Manuals shall be organized into a set of manageable-sized binders. Where two or more binders are necessary to accommodate data, the data shall be compiled in binders in related groupings. The Project Manual table of contents shall be used as a guide. Instructions for equipment that are similar and/or part of the same or related systems shall be in a single binder, if at all possible. Where necessary, binders shall be cross-referenced to provide essential information for proper operation or maintenance of the piece of equipment or system.
- D. Each binder shall be identified on the front and on the spine with the printed title "OPERATION AND MAINTENANCE MANUAL," the Project name, and the subject matter covered. With multiple-volume sets of manuals, the identification shall indicate the volume number of each binder.
- E. When a binder is organized into separate sections for different equipment, systems, products, or components, heavy paper dividers with celluloid tabs shall be used to separate sections. The tabs shall indicate the section contents. On the divider, a typed description of the product, and major parts of equipment included, shall be provided.
- F. Protective transparent plastic jackets designed to enclose diagnostic software shall be provided for computerized electronic equipment.

## 1.05 O&M MANUAL CONTENT

- A. At a minimum, each Manual shall contain the following:
  - 1. title page
  - 2. table of contents
  - 3. general information
  - 4. copies of each warranty, bond, and/or service contract issued (as applicable)

- B. Additionally, each Manual shall contain a combination of the following items necessary to adequately describe and detail the installation of the product and detail its operation and maintenance:
  - 1. copies of product data
  - 2. drawings
  - 3. written text
- C. The title page should be provided in a transparent plastic envelope as the first sheet of each Manual. It should provide the following information:
  - 1. subject matter covered by the Manual
  - 2. Contract number and name
  - 3. date of submittal
  - 4. name, address, and telephone number of the Contractor
  - 5. name, address, and telephone number of the Professional for the Project
- D. A table of contents shall be provided after the title page. If there are multiple binders for a Manual, a comprehensive table of contents for all binders should be provided in each binder. The table of contents should be typewritten. The table of contents should be arranged systematically according to the Project Manual format, and should include each product identified by product name or other appropriate means.
- E. A general information section shall be provided immediately following the table of contents. This section should list each product included in the Manual, identified by product name. With each product, the list should include the names, addresses, and telephone numbers of the following:
  - 1. the subcontractor or installer
  - 2. the maintenance contractor (if applicable)
  - 3. a local source for replacement parts
- F. Product data should be in the form of manufacturer's standard printed data. Only those sheets pertinent to the part or product installed should be included. Each sheet should be marked to identify the part(s) or product(s) included in the Work.
- G. Drawings, shop drawings, or diagrams, as required, should supplement manufacturer's printed data, to illustrate the relationship between component parts of equipment or systems, or to provide control or flow diagrams.
  - 1. Drawings should be provided with reinforced punched binder tabs and bound-in with the text. Oversized drawings should be folded to the same size as the text pages so they can be used as a fold-out. For drawings too large to be used practically as a fold out, drawings should be neatly folded and placed in the front or rear pocket of the binder. For drawings provided in the front or rear binder pocket, a typewritten page should be included both in the binder and with the drawings as a cross reference.
  - 2. Record Drawings shall not be used as part of O&M Manuals.
- H. Written text shall be provided when product data is not available and information is necessary for proper operation and maintenance, when drawings need supplemental explanation for proper operation and maintenance, and/or when additional information is necessary to supplement data included in the Manual. Written text should be organized in a consistent format, outlined as appropriate, and sequenced logical under separate headings, as appropriate.

General Requirements for 71-FA-8.1 Contract No. ESU 30-2107

- I. A copy of each applicable warranty, equipment performance bond or certification, and service contract shall be provided. Included should be written data outlining procedures to be followed in the event of equipment or system failure, and written data identifying the circumstances and conditions that would affect validity of the warranty or bond.
- J. Equipment and Systems Manuals shall contain, in addition to those items identified in paragraph 1.05, for each piece of equipment or system, the following items.
  - 1. A complete description of each unit and related component parts, to include:
    - a. manufacturer's name, model number, and serial number
    - b. equipment or system function
    - c. operating characteristics
    - d. limiting conditions
    - e. performance curves
    - f. engineering data and tests
    - g. complete nomenclature and number of replacement parts (spare parts list)
  - 2. For each component part or piece of equipment, printed operating and maintenance instructions, assembly drawings and wiring diagrams required for maintenance, and a list of items recommended to be stocked as spare parts
  - 3. Detailed essential maintenance procedures, including those for routine operations, troubleshooting guide, disassembly, repair and reassembly, alignment, adjusting, and checking
  - 4. Detailed operating procedures, including:
    - a. start-up procedures
    - b. equipment or system break-in
    - c. routine and normal operating instructions
    - d. regulations and control procedures
    - e. instructions on stopping
    - f. shut-down and emergency instructions
    - g. summer and winter operating instructions
    - h. required sequences for electric or electronic systems
    - i. special operating instructions, including testing procedures
  - 5. Detailed schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts
  - 6. For systems requiring controls, a description of the sequence of operation and as-installed control diagrams by the control manufacturer
  - 7. Any Coordination Drawings
  - 8. Charts of valve tag numbers, with the location and function of each valve
  - 9. For electrical and electronic systems, complete circuit directories of panel boards, including electric service, controls, and communication
- K. Architectural Products Manuals shall contain, in addition to those items identified in paragraph 1.05, the following items.
  - 1. Manufacturer's Data, including:
    - a. manufacturer's catalog number
    - b. size
    - c. material composition
    - d. color

- e. texture
- f. reordering information for specially-manufactured products
- 2. Care and maintenance instructions, including:
  - a. manufacturer's recommendations for types of cleaning agents to be used and methods of cleaning
  - b. information regarding cleaning agents and methods that could prove detrimental to the product
  - c. manufacturer's recommended schedule for cleaning and maintenance
- L. Moisture Protection and Weather-Exposed Products Manuals shall contain, in addition to those items identified in paragraph 1.05, Manufacturer's Data which includes:
  - 1. applicable standards
  - 2. chemical composition
  - 3. installation details
  - 4. inspection procedures
  - 5. maintenance information
  - 6. repair procedures

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# SECTION 017836 WARRANTIES

#### PART 1 - GENERAL

## 1.01 DEFINITIONS

- A. Within this Section, the term Warranty shall be used to mean warranties of various types, equipment performance certifications, and similar performance quarantees.
- B. Within this Section, the term Product shall be used to mean equipment, systems, products, components, and other similar aspects of the Work that have a manufacturer's or installer's warranty.

#### 1.02 GENERAL WARRANTY REQUIREMENTS

- A. Basic construction warranty of work is outlined in the General Conditions of the Contract.
- B. Requirements for a Maintenance Bond, if required, were outlined in the Invitation for Bids.
- C. Specific Product warranties are identified in the various Technical Specification sections.
- D. Each Separate Prime Contractor shall provide the basic construction warranty, shall provide his own Maintenance Bond, if required, and shall be responsible for any required Product warranties, related to his own Contract.
- E. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- F. Written warranties made to the University are in addition to implied warranties, and shall not limit the duties, obligations, rights, and remedies otherwise available under law. Warranty periods shall not be interpreted as limitations on time in which the University can enforce such other duties, obligations, rights, or remedies as established by the Uniform Commercial Code (UCC).
- G. The University reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- H. Where a special warranty is required on the Work or part of the Work, the University reserves the right to refuse to accept the Work until the responsible entities countersign such warranty.
- I. Upon determination by the University that Work covered by a warranty has failed, the Contractor shall replace or rebuild the Work to an acceptable condition complying with requirements of Contract. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the University benefits from use of the Work through a portion of its anticipated useful service life.
- J. When correcting warranted Work that has failed, the Contractor shall remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

- K. When Work covered by a warranty has failed and been corrected by replacement or rebuilding, the warranty shall be reinstated by the Contractor by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- L. In the event the Contractor fails to commence and diligently pursue any warranty work required, the University may have the work performed by others, and after completion of the work, charge the cost of the work, and any reasonable and necessary expenses associated with the work incurred by the University, to the Contractor. In the event sufficient funds are not remaining in the Contract to cover the cost and expenses incurred, the University will have the right to recoup expenses by other legal means.

# 1.03 WARRANTY PERIODS

Warranties shall commence on the Substantial Completion Date, unless one of the following apply.

- A. The Certificate of Substantial Completion designates a warranty commencement date, other than the Substantial Completion Date, for certain Work or portions of Work.
- B. By separate agreement between the Contractor and the University, a designated and completed portion of the Work is occupied or used by the University during the construction period, in which case any warranty related to that Work or portions of the Work shall commence when the occupancy or use begins.

# 1.04 SUBMITTAL OF PRODUCT WARRANTIES

- A. Written product warranties shall be submitted to the University within fifteen (15) days of Substantial Completion. If another date is specified per paragraph 1.03 above, written warranties shall be submitted within fifteen (15) days of that other date.
- B. When a special warranty is required to be executed by the Contractor, or by the Contractor and a subcontractor, supplier, or manufacturer, the Contractor shall prepare a written document for execution by the required parties that contains appropriate terms and identification. A draft of the written document shall be submitted to the University for acceptance prior to final execution.
- C. When Operating and Maintenance Manuals are required for warranted construction, an additional copy of each required warranty shall be provided, as necessary, with each Operating and Maintenance Manual.

## 1.05 SUBMITTAL OF WARRANTY PLAN

- A. Each Separate Prime Contractor shall prepare and submit a Warranty Plan which outlines the responsibilities and procedures to address warranty issues arising from the Contract and the Work. Each Separate Prime Contractor's Warranty Plan shall include information relative to his own portion of the Work and to product warranties related to his own Contract.
- B. Prior to Substantial Completion, the Contractor shall meet with the University to develop a mutual understanding with respect to the requirements of the Warranty Plan. Communication procedures for notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the University for the execution of the warranty shall be established and reviewed at this meeting. Based on the information provided at the meeting, the Contractor shall submit to the University a written Warranty Plan.
- C. The Warranty Plan shall generally include all information required to assure that the University receives all warranties to which it is entitled and can take action with respect to calls against the warranties. The Plan shall be in sufficient detail to render it suitable for use by future

University operations and maintenance personnel, and tailored as appropriate for the specific Contract.

- D. The Warranty Plan shall include the following information.
  - 1. The Plan shall identify key personnel associated with the warranty process, to include their specific roles and responsibilities, and their telephone numbers and other means of contact. Key personnel should be from within the organizations of the Contractor, subcontractors, manufacturers, and suppliers involved. The Contractor may choose to furnish the name, telephone number and address of a licensed and bonded company, other than itself, authorized to directly initiate and pursue warranty work on its behalf. Doing so does not relieve the Contractor of any of its responsibilities in connection with their responsibility for warranting the Work.
  - The Plan shall provide a list of all product warranties and special warranties required by the Contract Documents. This list shall also provide the status of delivery of each of these warranties.
  - 3. The Plan shall provide a list of each warranted product. This list shall include the following:
    - a. name of item
    - b. model number
    - c. serial number
    - d. location where installed
    - e. name and phone numbers of manufacturer
    - f. name and phone numbers of installer
    - g. names, addresses, and telephone numbers of sources of spare parts
    - h. organization, names, and phone numbers of persons to call for warranty service
    - i. typical response time and repair time expected for various warranted equipment
    - i. term of warranty (starting point and end point of warranty period)

## 1.06 TEN-MONTH WARRANTY INSPECTION

- A. Ten (10) months after the date for Substantial Completion, the University will conduct an inspection of the facility, and based on the inspection, prepare and provide to the Contractor a list of warranty work items that are required to be replaced or repaired under the terms of the warranty provisions of the Contract. The Contractor may be invited to participate in this inspection, but his participation is not mandatory.
- B. Upon receipt of the list of warranty work items, the Contractor shall provide to the University a response containing his planned actions and dates for those actions relative to the identified warranty work items. The Contractor shall complete all work items not later than twelve (12) months after the date for Substantial Completion.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

## **SECTION 017839**

#### PROJECT RECORD DOCUMENTS

#### PART 1 - GENERAL

## 1.01 RECORD DOCUMENTS

- A. Record Documents consist of Record Drawings (As-Built Drawings) and Record Specifications.
- B. Record Documents shall not be used for construction purposes. During the Work they shall be protected from deterioration and loss in a secure, fire-resistive location.
- C. Record Documents shall have been updated and checked periodically during the Work.
- D. The Contractor shall provide reasonable periodic access to Record Documents by the University during normal working hours.

# 1.02 RECORD DRAWINGS (AS-BUILT DRAWINGS)

- A. Each Separate Prime Contractor shall maintain a clean and undamaged set of Contract Drawings and Shop Drawings as the Record Drawings. Periodic updating shall pay particular attention to concealed elements that would be difficult to measure and record at a later date.
- B. Record Drawings shall be marked to show where the actual installation varies from the drawings as originally shown. Markings shall be in red erasable pencil. Other colors shall be used to distinguish between variations in separate categories of the Work.
- C. Where Shop Drawings are used, cross references shall be noted at the corresponding locations on the Contract Drawings.
- D. Related Addenda and Change Orders shall be noted where applicable.
- E. Record Drawings shall be organized into manageable sets of sheets, bound with durable paper cover sheets, and printed with suitable titles, dates, and other identification on the cover of each set.
- F. At the completion of the Work, the Contractor shall submit one (1) set of draft (Red Line) Record Drawings to the University.
- G. The University and/or the Professional will review the submitted Record Drawings. If the Drawings are missing changes or other information, they will be returned to the Contractor for correction and proper completion. If the Drawings are satisfactory, the University will have the Professional incorporate the Red Line changes into the electronic format drawings.
- H. If agreeable to the Contractor and the University, the Contractor may maintain and submit his Record Drawings in electronic format.

# 1.03 RECORD SPECIFICATIONS

A. Each Separate Prime Contractor shall maintain a clean and undamaged copy of the Project Manual (Technical Specifications), including Addenda and Change Orders, as the Record Specifications.

- B. During the Work, periodic updating of the Record Specifications shall be done, with particular attention paid to substitutions, selection of options, and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation.
- C. Record Specifications shall be marked to show where the actual Work varies from the original Specifications. Markings shall be in red erasable pencil. Other colors shall be used to distinguish between variations in separate categories of the Work.
- D. Related Addenda and Change Orders shall be noted where applicable.
- E. At the completion of the Work, the Contractor shall submit one (1) set of draft Record Specifications to the University.
- F. The University and/or the Professional will review the submitted Record Specifications. If the Specifications are missing changes or other information, they will be returned to the Contractor for correction and proper completion. If the Specifications are satisfactory, the University will have the Professional incorporate the Red Line changes into the electronic format specifications.
- G. If agreeable to the Contractor and the University, the Contractor may maintain and submit his Record Specifications in electronic format.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

# SECTION 02 4116 - SELECTIVE DEMOLITION

# PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Demolition and removal of selected portions of a building.
  - 2. Patching and repairs.

# 1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Existing to remain: Protect construction indicated to remain against damage and soiling during selective demolition.

# 1.4 MATERIALS OWNERSHIP

A. Demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option, unless otherwise indicated by the owner.

# 1.5 PROJECT CONDITIONS

- A. The Owner occupies portions of the building immediately adjacent to the selective demolition area. Conduct selective demolition so that Owner's operations will not be disrupted. Provide not less than 72 hours' notice to the Owner of activities that will affect Owner's operations.
- B. Prior to the commencement of any and all demolition, selective or otherwise, the contractor shall inform all parties as to the actual commencement of such activities.

# 1.6 WARRANTY

A. Existing special Warranty: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

# PART 2 - PRODUCTS

# 2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
  - Where identical materials are unavailable or cannot be used for exposed surfaces, discuss with the architect and the owner and use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equals or surpasses that of existing materials.

# PART 3 - EXECUTION

# 3.1 EXAMINATION

- A. Verify that existing utilities have been amply located and identified prior to disconnection or being capped.
- B. Verify that utilities have been disconnected and capped in accordance with the plans and utility providers.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated architectural mechanical, electrical, plumbing or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly notify the Owner and the Architect's project manager of conflict and submit a written report to the Architect.
- E. Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

# 3.2 UTILITY SERVICES

A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized in writing by Owner and authorities having jurisdiction.

# 3.3 PREPARATION

- A. Conduct demolition operations and remove debris to ensure minimum interference adjacent occupied and used facilities.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
  - 1. Erect temporary protection, such as partitions, walks, fences, railings, canopies, and covered passageways, where required to ensure safety.
  - 2. Provide temporary weather protection, during interval between demolition and removal of existing construction, on exterior surfaces and new construction to ensure that no water leakage or damage occurs to structure or interior areas.
  - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition operations.
  - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
- C. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of building to be selectively demolished.
  - 1. Strengthen or add new supports when required during progress of selective demolition.

# 3.4 POLLUTION CONTROLS

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
  - 1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice flooding, and pollution.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to existing condition before start of selective demolition.

# 3.5 SELECTIVE DEMOLITION

A. Demolish and remove existing construction only to the extent required by new

construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:

- Proceed with selective demolition systematically, from higher to lower level.
   Complete selective demolition work above each floor or tier before disturbing supporting members on lower levels.
- 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
- 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
- 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
- 5. Maintain adequate ventilation when using cutting torches.
- 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
- 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
- 8. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.
- 9. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.
- B. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain, using power-driven masonry saw or hand tools; do not use power-driven impact tools.

# 3.6 PATCHING AND REPAIRS

- A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.
- B. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
  - 1. Completely fill holes and depressions in existing masonry walls to remain with an approved masonry patching material, applied according to manufacturer's printed recommendations.
- C. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.
- D. Patch and repair wall surfaces where demolished walls extend one finished area into

another. Provide a flush and even surface of uniform color and appearance.

# 3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

# 3.8 CLEANING

A. Sweep the building broom clean on completion of selective demolition operation.

# 3.9 DURABILITY

A. During selective site demolition and relocation operations, maintain temporary and permanent erosion and sediment controls or replace as soon as demolition or relocation is completed.

#### 3.10 OPERATION AND MAINTENANCE

- A. Comply with requirements of utility providers.
- B. Locations of Existing and Abandoned Utilities: Recorded or marked in such a manner that they can be easily located during and after completion of construction.

**END OF SECTION** 

#### SECTION 040110 - MASONRY CLEANING

# PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes cleaning the following:
  - 1. Unit masonry surfaces.

# 1.2 DEFINITIONS

- A. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm
- B. Medium-Pressure Spray: 400 to 800 psi; 4 to 6 gpm.
- C. High-Pressure Spray: 800 to 1200 psi; 4 to 6 gpm.

# 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

#### 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

#### 1.5 QUALITY ASSURANCE

- A. Mockups: Prepare mockups of cleaning on existing surfaces to demonstrate aesthetic effects and to set quality standards for materials and execution.
  - 1. Cleaning: Clean an area approximately 25 sq. ft. for each type of masonry and surface condition.
    - a. Test cleaners and methods on samples of adjacent materials for possible adverse reactions. Do not test cleaners and methods known to have deleterious effect.
    - b. Allow a waiting period of not less than seven days after completion of sample cleaning to permit a study of sample panels for negative reactions.

# PART 2 - PRODUCTS

# 2.1 CLEANING MATERIALS

- A. Water: Potable.
- B. Hot Water: Water heated to a temperature of 140 to 160 deg F.
- C. Mild-Acid Cleaner: Manufacturer's standard mild-acid cleaner containing no muriatic (hydrochloric), hydrofluoric, or sulfuric acid; or ammonium bifluoride or chlorine bleaches.
  - 1. Prosoco Light Duty Restoration Cleaner
  - 2. Chemqiue Artisan Safer Restoration Cleaner
  - 3. EacoChem One Restore Restoration Cleaner

# 2.2 CHEMICAL CLEANING SOLUTIONS

- A. Dilute chemical cleaners with water to produce solutions not exceeding concentration recommended in writing by chemical-cleaner manufacturer.
- B. Acidic Cleaner Solution for Nonglazed Masonry: Dilute acidic cleaner with water to produce hydrofluoric acid content of 3 percent or less, but not greater than that recommended in writing by chemical-cleaner manufacturer.
  - 1. Stones: Use only on unpolished granite, unpolished dolomite marble, and siliceous sandstone.
- C. Acidic Cleaner for Glazed Masonry: Dilute acidic cleaner with water to concentration demonstrated by testing that does not etch or otherwise damage glazed or polished surface, but not greater than that recommended in writing by chemical-cleaner manufacturer.
  - 1. Stones: Use only on polished granite and polished dolomite marble.

#### PART 3 - EXECUTION

### 3.1 PROTECTION

- A. Comply with each manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products. Prevent paint removers and chemical cleaning solutions from coming into contact with people, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
  - 1. Cover adjacent surfaces with materials that are proven to resist paint removers and chemical cleaners used unless products being used will not damage

adjacent surfaces. Use protective materials that are waterproof and UV resistant. Apply masking agents according to manufacturer's written instructions. Do not apply liquid strippable masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.

# 3.2 CLEANING MASONRY, GENERAL

- A. Cleaning Appearance Standard: Cleaned surfaces are to have a uniform appearance as viewed from 20 feet away by Restoration Design Professional.
- B. Proceed with cleaning in an orderly manner; work from top to bottom of each scaffold width and from one end of each elevation to the other. Ensure that dirty residues and rinse water do not wash over dry, cleaned surfaces.
- C. Use only those cleaning methods indicated for each masonry material and location.
  - 1. Brushes: Do not use wire brushes or brushes that are not resistant to chemical cleaner being used.
  - 2. Spray Equipment: Use spray equipment that provides controlled application at volume and pressure indicated, measured at nozzle. Adjust pressure and volume to ensure that cleaning methods do not damage surfaces, including joints.
    - a. Equip units with pressure gages.
    - b. For chemical-cleaner spray application, use low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with nozzle having a cone-shaped spray.
    - c. For water-spray application, use fan-shaped spray that disperses water at an angle of 25 to 50 degrees.
    - d. For heated water-spray application, use equipment capable of maintaining temperature between 140 and 160 deg F at flow rates indicated.
- D. Perform each cleaning method indicated in a manner that results in uniform coverage of all surfaces, including corners, moldings, and interstices, and that produces an even effect without streaking or damaging masonry surfaces. Keep wall wet below area being cleaned to prevent streaking from runoff.
- E. Perform additional general cleaning, paint and stain removal, and spot cleaning of small areas that are noticeably different when viewed according to the "Cleaning Appearance Standard" Paragraph, so that cleaned surfaces blend smoothly into surrounding areas.
- F. Water-Spray Application Method: Unless otherwise indicated, hold spray nozzle at least 6 inches from masonry surface and apply water in horizontal back-and-forth sweeping motion, overlapping previous strokes to produce uniform coverage.
- G. Chemical-Cleaner Application Methods: Apply chemical cleaners to masonry surfaces according to chemical-cleaner manufacturer's written instructions; use brush or spray application. Do not allow chemicals to remain on surface for periods longer than those indicated or recommended in writing by manufacturer.

- H. Rinse off chemical residue and soil by working upward from bottom to top of each treated area at each stage or scaffold setting. Periodically during each rinse, test pH of rinse water running off of cleaned area to determine that chemical cleaner is completely removed.
  - 1. Apply neutralizing agent and repeat rinse if necessary to produce tested pH of between 6.7 and 7.5.

### 3.3 PRELIMINARY CLEANING

- A. Removing Plant Growth: Completely remove visible plant, moss, and shrub growth from masonry surfaces. Carefully remove plants, creepers, and vegetation by cutting at roots and allowing remaining growth to dry as long as possible before removal. Remove loose soil and plant debris from open joints to whatever depth they occur.
- B. Preliminary Cleaning: Before beginning general cleaning, remove extraneous substances that are resistant to planned cleaning methods. Extraneous substances include paint, calking, asphalt, and tar.
  - 1. Carefully remove heavy accumulations of rigid materials from masonry surface with sharp chisel. Do not scratch or chip masonry surface.

# 3.4 CLEANING MASONRY

- A. Mild-Acid Chemical Cleaning:
  - 1. Wet surface with cold water applied by low-pressure spray.
  - 2. Apply cleaner to surface in two applications by brush.
  - 3. Let cleaner remain on surface for period recommended in writing by chemicalcleaner manufacturer.
  - 4. Rinse with cold water applied by medium pressure spray to remove chemicals and soil.
  - 5. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use steam cleaning.

**END OF SECTION 040110** 

#### SECTION 040120.63 - BRICK MASONRY REPAIR

#### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section includes repairing brick masonry, including replacing units.

#### 1.2 DEFINITIONS

A. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.

#### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at the Project site

# 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
  - 1. Include plans, elevations, sections, and locations of replacement masonry units on the structure.
  - 2. Show provisions for expansion joints or other sealant joints.
- C. Samples: For each exposed product and for each color and texture specified.

#### 1.5 INFORMATIONAL SUBMITTALS

A. Quality-control program.

#### 1.6 QUALITY ASSURANCE

- A. Brick Masonry Repair Specialist Qualifications: Engage an experienced brick masonry repair firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience in only installing masonry is insufficient experience for masonry repair work.
- B. Quality-Control Program: Prepare a written quality-control program for this Project to systematically demonstrate the ability of personnel to properly follow methods and use

- materials and tools without damaging masonry. Include provisions for supervising performance and preventing damage.
- C. Mockups: Prepare mockups of brick masonry repair to demonstrate aesthetic effects and to set quality standards for materials and execution and for fabrication and installation.
  - Masonry Repair: Prepare sample areas for each type of masonry repair work performed. If not otherwise indicated, size each mockup not smaller than two adjacent whole units or approximately 48 inches in least dimension. Construct sample areas in locations in existing walls where directed by Restoration Design Professional unless otherwise indicated. Demonstrate quality of materials, workmanship, and blending with existing work.

#### PART 2 - PRODUCTS

#### 2.1 MASONRY MATERIALS

- A. Face Brick: As required to complete brick masonry repair work.
  - 1. Brick Matching Existing: Units with colors, color variation within units, surface texture, size, and shape that match existing brickwork.
    - a. Brick masonry patching was recently done on this building Contractor to use the same brick. Provide "Camden Blend" by Glen Gery. Contact George Kragh of Beth Hanover Supply, 610-248-0900 <a href="mailto:gkragh@ptd.net">gkragh@ptd.net</a>

# 2. Special Shapes:

- a. Provide molded, 100 percent solid shapes for applications where core holes or "frogs" could be exposed to view or weather when in final position and where shapes produced by sawing would result in sawed surfaces being exposed to view.
- b. Mechanical chopping or breaking brick, or bonding pieces of brick together by adhesive, are unacceptable procedures for fabricating special shapes.
- B. Building Brick: ASTM C 62, Grade SW where in contact with earth or Grade SW, MW, or NW for concealed backup; and of same vertical dimension as face brick, for masonry work concealed from view.

#### 2.2 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150/C 150M, Type I or Type II, except Type III may be used for cold-weather construction; white or gray, or both where required for color matching of mortar.
  - 1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.

- B. Hydrated Lime: ASTM C 207, Type S.
- C. Masonry Cement: ASTM C 91/C 91M.
- D. Mortar Cement: ASTM C 1329/C 1329M.
- E. Mortar Sand: ASTM C 144.
  - 1. Exposed Mortar: Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
  - 2. Colored Mortar: Natural sand or ground marble, granite, or other sound stone of color necessary to produce required mortar color.
- F. Mortar Pigments: ASTM C 979/C 979M, compounded for use in mortar mixes, and having a record of satisfactory performance in masonry mortars.
- G. Water: Potable.
- H. Match Existing: Masonry patching was recently done on this building Contractor to use the same mortar. Contact George Kragh of Beth Hanover Supply, 610-248-0900 gkragh@ptd.net

# 2.3 MANUFACTURED REPAIR MATERIALS

- A. Brick Patching Compound: Factory-mixed cementitious product that is custom manufactured for patching brick masonry.
  - Use formulation that is vapor and water permeable (equal to or more than the masonry unit), exhibits low shrinkage, has lower modulus of elasticity than masonry units being repaired, and develops high bond strength to all types of masonry.
  - 2. Formulate patching compound in colors and textures to match each masonry unit being patched.

### 2.4 ACCESSORY MATERIALS

- A. Setting Buttons and Shims: Resilient plastic, nonstaining to masonry, sized to suit joint thicknesses and bed depths of masonry units, less the required depth of pointing materials unless removed before pointing.
- B. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
  - 1. Previous effectiveness in performing the work involved.
  - 2. Minimal possibility of damaging exposed surfaces.
  - 3. Consistency of each application.
  - 4. Uniformity of the resulting overall appearance.
  - 5. Do not use products or tools that could leave residue on surfaces.

# 2.5 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
- B. Colored Mortar: Produce mortar of color required by using specified ingredients. Do not alter specified proportions without Restoration Design Professional's approval.
  - 1. Mortar Pigments: Where mortar pigments are indicated, do not add pigment exceeding 10 percent by weight of the cementitious or binder materials, except for carbon black which is limited to 2 percent.
- C. Do not use admixtures in mortar unless otherwise indicated.
- D. Match Existing: Masonry patching was recently done on this building Contractor to use the same mortar. Contact George Kragh of Beth Hanover Supply, 610-248-0900 <u>gkragh@ptd.net</u>
- E. Mixes: Mix mortar materials in the following proportions:
  - 1. Rebuilding (Setting) Mortar by Volume: ASTM C 270, Proportion Specification, [1 part portland cement, 1 part lime, and 6 parts sand]
  - 2. Rebuilding (Setting) Mortar by Type: ASTM C 270, Proportion Specification, Type N unless otherwise indicated; with cementitious material limited to masonry cement
  - 3. Rebuilding (Setting) Mortar by Property: ASTM C 270, Property Specification, [Type N] unless otherwise indicated; with cementitious material limited to masonry cement
  - 4. Pigmented, Colored Mortar: Add mortar pigments to produce exposed, setting (rebuilding) mortar of colors required.

# PART 3 - EXECUTION

# 3.1 PROTECTION

A. Remove existing light fixtures and signage that are within the project area, and store during masonry repair. Reinstall when repairs are complete.

# 3.2 FLASHING, WEEP HOLES, AND VENTS

A. Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated

- B. Install flashing as follows unless otherwise indicated:
  - 1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape[ as recommended by flashing manufacturer].
  - 2. Extend flashing through veneer, across airspace behind veneer, and up face of sheathing at least 8 inches (203 mm); with upper edge tucked under water-resistive barrier, lapping at least 4 inches (102 mm).
  - 3. Provide Prefabricated end dam in head joint, set in mastic (if not self-adhering). End dam to be placed prior to through-wall flashing.

# 3.3 BRICK REMOVAL AND REPLACEMENT

- A. At locations indicated, remove bricks. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.
- B. Support and protect remaining masonry that surrounds removal area.
- C. Notify Restoration Design Professional of unforeseen detrimental conditions including voids, cracks, bulges, and loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- D. Remove in an undamaged condition as many whole bricks as possible.
  - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
  - 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.
- E. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement.
- F. Replace removed damaged brick with other removed brick in good condition, where possible, matching existing brick. Do not use broken units unless they can be cut to usable size.
- G. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.
  - 1. Maintain joint width for replacement units to match existing joints.
  - 2. Use setting buttons or shims to set units accurately spaced with uniform joints.
- H. Lay replacement brick with rebuilding (setting) mortar and with completely filled bed, head, and collar joints. Butter ends with enough mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.

- 1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
- 2. Rake out mortar used for laying brick before mortar sets according to Section 040120.64 "Brick Masonry Repointing." Point at same time as repointing of surrounding area.
- 3. When mortar is hard enough to support units, remove shims and other devices interfering with pointing of joints.
- I. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.
  - 1. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

#### 3.4 MASONRY UNIT PATCHING

# A. Patching Bricks:

- 1. Remove loose material from masonry surface. Carefully remove additional material so patch does not have feathered edges but has square or slightly undercut edges on area to be patched and is at least 1/4 inch thick, but not less than recommended in writing by patching compound manufacturer.
- 2. Mask adjacent mortar joint or rake out for repointing if patch extends to edge of masonry unit.
- 3. Mix patching compound in individual batches to match each unit being patched. Combine one or more colors of patching compound, as needed, to produce exact match
- 4. Rinse surface to be patched and leave damp, but without standing water.
- 5. Brush-coat surfaces with slurry coat of patching compound according to manufacturer's written instructions.
- 6. Place patching compound in layers as recommended in writing by patching compound manufacturer, but not less than 1/4 inch or more than 2 inches thick. Roughen surface of each layer to provide a key for next layer.
- 7. Trowel, scrape, or carve surface of patch to match texture and surrounding surface plane or contour of masonry unit. Shape and finish surface before or after curing, as determined by testing, to best match existing masonry unit.
- 8. Keep each layer damp for 72 hours or until patching compound has set.

# 3.5 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, applied by low pressure spray.
  - 1. Do not use metal scrapers or brushes.
  - 2. Do not use acidic or alkaline cleaners.
- B. See Masonry Cleaning Spec Section 04 0110

**END OF SECTION 040120.63** 

# PART 1 GENERAL

# 1.01 SUMMARY

- A. Section Includes
  - 1. Installation of masonry repair systems.

# 1.02 REFERENCES

- A. The date of the standard is that in effect as the date of receipt of bids for the project.
- B. The Masonry Society (TMS):
  - 1. TMS 402/602 Building Code Requirements and Specifications for Masonry Structures.
- C. ASTM International (ASTM):
  - 1. ASTM A 276/ 276M- Standard Specification for Stainless Steel Bars and Shapes.
  - 2. ASTM A580/580M Standard Specification for Stainless Steel Wire.
  - 3. ASTM A582 Standard Specification for Free-Machining Stainless Steel Bars.
  - 4. ASTM B16/16M Standard Specification for Free-Cutting Brass Rod, Bar, and Shapes for Use in Screw Machines.
  - 5. ASTM C 1093- Standard Practice for Accreditation of Testing Agencies for Masonry.
- D. The Brick Industry Association (BIA):
  - 1. Tek Note #44b- Wall Ties for Brick Masonry.

# 1.03 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Meeting: Convene before the start of work on new concrete slabs, patching of existing concrete slabs and start of application of concrete finish system.
  - 1. Require attendance of parties directly affecting work of this Section, including the Owner's Representative, Contractor, Architect, Engineer, and Installer. Meeting should only convene when required parties are present.
  - 2. Review the following:
    - a. Installation procedure.
    - b. Quality control.
    - c. Coordination with other Work.

#### 1.04 SUBMITTALS

- A. Product Data:
  - 1. Submit manufacturer's product data sheets and tested physical and performance properties for each product to be used, indicating the size and length of anchor to be used for the work.

# 1.05 QUALITY ASSURANCE

A. Installer Qualifications:

- Installer to be familiar with the specified requirements and the methods needed for proper installation of anchoring systems, including coordination with wall assembly components. Installer must have the proper equipment available to perform work within the scope of this project on a timely basis.
- B. Manufacturer: Provide product design, product engineering, and technical assistance for the selection, application, and installation of an appropriate anchoring system for the project.
- C. Testing Agency:
  - 1. Field Testing: The inspector must be experienced with the proper use of calibrated test equipment.
  - 2. Laboratory Testing: The testing agency must be qualified in accordance with ASTM C1093 for the testing indicated.
- D. Mock-up: On-site, prior to the start of work within this section.
  - 1. Require attendance of parties directly affecting work of this Section, including the Contractor, Installer, Architect, Engineer, and Owner's Representative.
  - 2. Notify the above parties at least one week in advance of the date and time when the mock-up will be completed.
  - 3. Install anchor for evaluation of application of workmanship
  - 4. Perform in-situ testing of the installed anchors in the wall to be repaired to confirm the retrofit anchor performs as expected in both the veneer and backup independently.
  - 5. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in the mockups unless the Architect/Engineer specifically approves such deviations in writing.
  - 6. Subject to compliance with requirements, an approved mockup may become part of the completed work.

# 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the worksite in manufacturer's original and unopened package, labeled with manufacturer's name and type of product.
- B. Store materials in an environment recommended on published manufacturer's product datasheets.

# PART 2 PRODUCTS

# 2.01 MANUFACTURERS

- A. Basis of Design: Prosoco Stitch-Tie Bar
- B. Substitutions: Helifix Helibar, Simpson Strong-Tie Heli-Tie

#### 2.02 ANCHORS AND TIES

- A. Horizontal Reinforcement: Provide supplemental joint reinforcement to reinforce cracked masonry and to create structural beams from existing brick veneers.
  - 1. Material:

- a. Provide ties and anchors specified in this article that are made from materials that comply with the following, unless otherwise indicated.
  - 1) Stainless steel wire: ASTM A580/A580M, Type 304.
  - 2) Grout: BS EN 998-2.
- 2. Application:
  - a. Crack Stitching:
    - 1) Stitch-Tie Bar by PROSOCO, Inc., 6mm diameter.
    - 2) Grout: SureGrout S (3900 psi / 27.5 Mpa) by Sure CPS.

#### 2.03 EQUIPMENT

- A. Tools and Equipment:
  - 1. Horizontal Reinforcement:
    - a. Angle Grinder.
    - b. Cement paddle mixing drill.
    - c. Manual lever grout gun.
    - d. Appropriate Trowel.

#### PART 3 EXECUTION

# 3.01 EXAMINATION

- A. Examine conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting the performance of Work.
- B. Do not begin installation until unsatisfactory conditions are resolved. Beginning work constitutes acceptance of site conditions and responsibility for defective installation caused by prior observable conditions.

#### 3.02 PREPARATION

- A. Clean dirt, dust, oil, grease, and other contaminants that interfere with penetration or performance of the specified product from surfaces.
- B. Locate anchors in the area to be anchored as indicated on the Drawings.
- C. Do not proceed until unsatisfactory conditions have been corrected.
- D. Install accessory products in accordance with the manufacturer's published recommendations and as noted on Drawings.

#### 3.03 INSTALLATION

- A. Install anchor in accordance with manufacturer's published recommendations and mockup.
- B. Horizontal Reinforcement:
  - 1. Grind away existing mortar, 20 inches minimum on each side of the crack, 1-1/2 inch to 2 inches deep.
  - 2. Clean with water.
  - 3. Apply a bead of the manufacturer's recommended grout.

- 4. Insert the helical tie bar into the bead of the manufacturer's recommended grout.
- 5. Apply a bead of grout over the helical tie bar.
- 6. If an additional helical tie bar is required, insert it into the bead of the manufacturer's recommended grout.
- 7. Apply a final bead of grout over the additional helical tie bar if required.
- 8. Compact with an appropriate trowel.

# 3.04 FIELD QUALITY CONTROL

- A. Site testing is encouraged for verification of helical or mechanical expansion anchor load capacity. Each construction site is unique and the appropriate use of this product is the responsibility of the engineers, architects, and other professionals who are familiar with the specific requirements of the project.
  - 1. Testing Agency: [Owner will engage] [Engage] a qualified testing agency to perform tests and inspections. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Re-testing of materials that fail to comply with specified requirements will be at the Contractor's expense.

**END OF SECTION** 

#### SECTION 051200 - STRUCTURAL STEEL FRAMING

#### 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:
  - Structural steel.

# 1.3 DEFINITIONS

A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

# 1.4 PERFORMANCE REQUIREMENTS

- A. Connections: Provide details of connections required by the Contract Documents to be selected or completed by structural-steel fabricator, including comprehensive engineering design by a qualified professional engineer, to withstand loads indicated and comply with other information and restrictions indicated.
  - 1. Select and complete connections using schematic details indicated and AISC 360.
  - 2. Use ASD; data are given at service-load level.
- B. Construction: As indicated on Contract Documents.

# 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication of structural-steel components. The contractor shall deliver to the engineer, at the completion of the job, one (1) electronic version of the final field copies of all steel erection drawing shop drawings.
  - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  - 2. Include embedment drawings.

- 3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
- 4. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical high-strength bolted connections.
- 5. For structural-steel connections indicated to comply with design loads, include structural design data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Welding Procedure Specifications (WPSs) and Procedure Qualification Records (PQRs): Provide according to AWS D1.1/D1.1M, "Structural Welding Code Steel," for each welded joint whether pregualified or qualified by testing, including the following:
  - 1. Power source (constant current or constant voltage).
  - 2. Electrode manufacturer and trade name, for demand critical welds.

# 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer, Fabricator, Professional Engineer, and Testing Agency.
- B. Welding certificates.
- C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.
- D. Mill test reports for structural steel, including chemical and physical properties.
- E. Product Test Reports: For the following:
  - 1. Bolts, nuts, and washers including mechanical properties and chemical analysis.
  - 2. Direct-tension indicators.
  - 3. Tension-control, high-strength bolt-nut-washer assemblies.
  - 4. Shop primers.
- F. Source quality-control reports.

# 1.7 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.
- B. Shop-Painting Applicators: Qualified according to AISC's Sophisticated Paint Endorsement P3 or SSPC-QP 3, "Standard Procedure for Evaluating Qualifications of Shop Painting Applicators."
- C. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code Steel."

- D. Comply with applicable provisions of the following specifications and documents:
  - 1. AISC 303.
  - 2. AISC 360.
  - 3. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."

# 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from erosion and deterioration.
  - 1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.
- B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.
  - 1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.
  - 2. Clean and relubricate bolts and nuts that become dry or rusty before use.
  - 3. Comply with manufacturers' written recommendations for cleaning and lubricating ASTM F 1852 fasteners and for retesting fasteners after lubrication.

# 1.9 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.
- C. Please see additional Structural Specification information on Drawing sheet A102.

# PART 2 - PRODUCTS

# 2.1 STRUCTURAL-STEEL MATERIALS

A. W-Shapes: ASTM A 992/A 992M

B. Channels, Angles: ASTM A 36/A 36M

C. Plate and Bar: ASTM A 36/A 36M

- D. Structural Sections: ASTM A 500, Grade C structural tubing.
- E. Steel Pipe: ASTM A 53/A 53M, Type E or S, Grade B.
  - 1. Weight Class: As indicated on documents.
  - 2. Finish: Black, except where indicated to be galvanized.
- F. Welding Electrodes: Comply with AWS requirements.

# 2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. High-Strength Bolts, Nuts, and Washers: ASTM A 325 (ASTM A 325M), Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade C, (ASTM A 563M, Class 8S) heavy-hex carbon-steel nuts; and ASTM F 436 (ASTM F 436M), Type 1, hardened carbon-steel washers; all with plain finish.
  - 1. Direct-Tension Indicators: ASTM F 959, Type 325 (ASTM F 959M, Type 8.8), compressible-washer type with plain finish.
- B. High-Strength Bolts, Nuts, and Washers: ASTM A 490 (ASTM A 490M), Type 1, heavy-hex steel structural bolts or tension-control, bolt-nut-washer assemblies with splined ends; ASTM A 563, Grade DH, (ASTM A 563M, Class 10S) heavy-hex carbon-steel nuts; and ASTM F 436 (ASTM F 436M), Type 1, hardened carbon-steel washers with plain finish.
  - 1. Direct-Tension Indicators: ASTM F 959, Type 490 (ASTM F 959M, Type 10.9), compressible-washer type with plain finish.
- C. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F 1852, Type 1, heavy-hex or round head assemblies consisting of steel structural bolts with splined ends, heavy-hex carbon-steel nuts, and hardened carbon-steel washers.
  - 1. Finish: Plain.
- D. Threaded Rods: ASTM A 36/A 36M
  - 1. Nuts: ASTM A 563 (ASTM A 563M) hex carbon steel.
  - 2. Washers: ASTM A 36/A 36M carbon steel.
  - 3. Finish: Plain.
- E. Expansion Anchors: Type and size as indicated on documents. Wedge type, torque-controlled, with impact section to prevent thread damage and wedge ridges to prevent spinning during installation, complete with required nuts, washers, and manufacturer's installation instructions. All expansion anchors shall be equipped with length identification markings.
  - 1. Interior Use: For use in conditioned environments free from potential moisture, provide carbon steel anchors with zinc plating in accordance with ASTM B633.
  - 2. Exposed Use: In exposed, potentially wet, or otherwise corrosive environment, provide anchors of Type 304 or Type 316 stainless steel with stainless steel nuts,

and washers of matching alloy group and minimum proof stress equal to or greater than the specified minimum full-size tensile strength of the externally threaded faster. All nuts shall conform to ASTM A563 Grade A unless otherwise specified. Stainless steel anchors shall not be installed in contact with galvanized steel, aluminum, or other galvanically dissimilar metals.

- 3. Products: Provide the following:
  - a. Hilti Kwik Bolt TZ Expansion Anchor for installation into concrete.
  - b. Hilti Kwik Bolt III Expansion Anchor for installation into masonry.
- F. Cartridge Injection Adhesive Anchors and rebar doweling: Threaded steel rod or inserts, complete with nuts, washers, polymer, cementitious, epoxy, or hybrid mortar adhesive injection system, and manufacturer's installation instructions. Type and size as indicated on documents.
  - 1. Interior Use: For use in conditioned environments free from potential moisture, provide threaded carbon steel rods conforming to ISO898, ASTM A36, or ASTM A 193, Grade B7 as indicated on documents.
  - 2. Exposed Use: In exposed, potentially wet or otherwise corrosive environments provide stainless steel anchors, nuts, and washers in accordance with ASTM F593. Provide nuts and washers with matching alloy group and minimum poof stress equal to or greater than the specified minimum full-size tensile strength of the externally threaded fastener. All nuts shall conform with ASTM F594 unless other otherwise specified. Stainless steel anchors shall not be installed in contact with galvanized steel, aluminum, or other galvanically dissimilar metals.
  - 3. Products: Provide the following:
    - a. Hilti HAS or HIT threaded rods or rebar (by others) with Hilti HIT HY-150 Adhesive for anchorage to masonry or stone. Hilti HIT HY-270 Adhesive System for anchorage to brick or concrete masonry (with screen tubes).
    - b. Hilti HAS, HIS threaded rods or rebar (by others) for doweling with Hilti HIT-RE 500-SD Adhesive Anchoring System for anchorage to concrete.

#### 2.3 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges" and AISC 360.
  - 1. Camber structural-steel members where indicated.
  - 2. Fabricate beams with rolling camber up.
  - 3. Identify high-strength structural steel according to ASTM A 6/ A 6M and maintain markings until structural steel has been erected.
  - 4. Mark and match-mark materials for field assembly.
  - 5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.
- B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.
  - 1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.1/D1.1M.

- C. Bolt Holes: Cut, drill, mechanically thermal cut, or punch standard bolt holes perpendicular to metal surfaces.
- D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.
- E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted according to SSPC-SP 3, "Power Tool Cleaning."
- F. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel framing members with reinforcing as indicated on documents.
  - 1. Cut, drill, or punch holes perpendicular to steel surfaces.
  - 2. Base-Plate Holes: Cut, drill, mechanically thermal cut, or punch holes perpendicular to steel surfaces.
  - 3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

# 2.4 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Snug tightened.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

### 2.5 SHOP PRIMING

- A. Shop prime steel surfaces except the following:
  - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches (50 mm).
  - 2. Surfaces to be field welded.
  - 3. Surfaces to be high-strength bolted with slip-critical connections.
  - 4. Surfaces to receive sprayed fire-resistive materials.
  - Galvanized surfaces.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
  - 1. SSPC-SP 3, "Power Tool Cleaning", unless indicated otherwise on documents or in Division 09.

# 2.6 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel according to ASTM A 123/ A 123M.
  - 1. Fill vent and drain holes that will be exposed in the finished Work unless they will function as weep holes, by plugging with zinc solder and filing off smooth.
  - 2. Galvanize lintels and shelf angles attached to structural-steel frames and/or located in exterior walls.

# 2.7 SOURCE QUALITY CONTROL

- A. Testing Agency: Owner will engage an independent testing and inspecting agency to perform shop tests and inspections and prepare test reports.
  - 1. Provide testing agency with access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
- B. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.
- C. Bolted Connections: Shop-bolted connections will be tested and inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- D. Welded Connections: In addition to visual inspection, shop-welded connections will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
  - 1. Liquid Penetrant Inspection: ASTM E 165.
  - 2. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
  - 3. Ultrasonic Inspection: ASTM E 164.
  - 4. Radiographic Inspection: ASTM E 94.
- E. In addition to visual inspection, shop-welded shear connectors will be tested and inspected according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
  - 1. Bend tests will be performed if visual inspections reveal either a less-thancontinuous 360-degree flash or welding repairs to any shear connector.
  - 2. Tests will be conducted on additional shear connectors if weld fracture occurs on shear connectors already tested, according to requirements in AWS D1.1/D1.1M.

#### PART 3 - EXECUTION

# 3.1 CONSTRUCTION WASTE MANAGEMENT

A. The contractor, subcontractors, and their personnel shall follow the procedures and practices for waste separation, collection and transport as defined in the contractor's "Waste Management Plan" as required by Division 01 Section "Construction Waste Management."

# 3.2 EXAMINATION

- A. Verify, with Steel Erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments, for compliance with requirements.
  - 1. Prepare a certified survey of bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.3 PREPARATION

- A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated.
  - 1. Do not remove temporary shoring supporting composite deck construction until cast-in-place concrete has attained its design compressive strength.

# 3.4 ERECTION

- A. Set structural steel accurately in locations, to elevations indicated, and according to AISC 303 and AISC 360.
- B. Align and adjust various members forming part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
  - 1. Level and plumb individual members of structure.
- C. Splice members only where indicated.
- D. Do not use thermal cutting during erection unless approved by Architect. Finish thermally cut sections within smoothness limits in AWS D1.1/D1.1M.
- E. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

# 3.5 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Snug tightened.
- B. Weld Connections: Comply with AWS D1.1/D1.1M[ and AWS D1.8/D1.8M] for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
  - 1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

### 3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to inspect field welds and high-strength bolted connections.
- B. Bolted Connections: Field-bolted connections will be tested and inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- C. Welded Connections: Field fillet welds will be visually inspected according to AWS D1.1/D1.1M.
  - 1. In addition to visual inspection, all suspect field fillet welds and all field full/partial penetration welds will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
- D. In addition to visual inspection, test and inspect field-welded shear connectors according to requirements in AWS D1.1/D1.1M for stud welding and as follows:
  - 1. Perform bend tests if visual inspections reveal either a less-than- continuous 360-degree flash or welding repairs to any shear connector.
  - 2. Conduct tests on additional shear connectors if weld fracture occurs on shear connectors already tested, according to requirements in AWS D1.1/D1.1M.
- E. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

# 3.7 REPAIRS AND PROTECTION

- A. Galvanized Surfaces: Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780.
- B. Touchup Painting: Immediately after erection, clean exposed areas where primer is damaged or missing and paint with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
  - Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.
- C. Touchup Painting: Cleaning and touchup painting are specified in Division 09 painting Sections.

END OF SECTION 05 12 00

# SECTION 07 6526 - SELF- ADHERING SHEET FLASHING

# PART 1 - GENERAL

# 1.1 SECTION INCLUDES

- A. Self-adhering through-wall flashing and accessory products.
- B. Materials and installation of self-adhering through-wall flashing assemblies as indicated on drawings.
- C. Through-wall flashing and accessories for installation in cavity wall construction in the following locations:
  - 1. Shelf angles
  - 2. At other discontinuities in the cavity
- 1.2 PRODUCTS INSTALLED BUT NOT SUPPLIED UNDER THIS SECTION: Masonry cavity drainage products (weeps and mortar drip screen).

# 1.3 RELATED SECTIONS

A. Section 040120 – Brick Masonry Repairs

# 1.4 REFERENCES

- A. ASTM D 146 Standard Test Methods for Sampling and Testing Bitumen Saturated Felts and Woven Fabrics for Roofing and Waterproofing
- B. ASTM D 412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers Tension
- C. ASTM D 570 Standard Test Method for Water Absorption of Plastics
- D. ASTM D 903 Standard Test Method for Peel and Stripping Strength of Adhesive Bonds
- E. ASTM D 1876 Standard Test Method for Peel Resistance of Adhesive
- F. ASTM D 4263 Standard Test Method for Indicating Moisture Content by Plastic sheet Method
- G. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials.

H. ASTM E 154 Standard Test Methods for Water Vapor Retarders used in Contact with Earth under Concrete Slabs, on Walls or as Ground Cover

# 1.5 PERFORMANCE REQUIREMENTS

- A. Provide a membrane constructed to perform as a through-wall flashing durably integrated with the wall assembly's water resistive barrier and cavity drainage system. The installed through-wall flashing shall perform as a liquid water drainage plane to discharge incidental condensation or water penetration to the exterior through the cavity drainage system.
- B. Provide a fully-adhered, water proof membrane through-wall flashing of minimum 0.040 inch thickness consisting of 0.032 inch rubberized asphalt adhesive fully-coating 0.008 inch smooth surface, cross-laminated HDPE film. Membrane shall meet the following requirements:

REQUIREMENT	RESULT	TEST METHOD
Tensile Strength	Not less than 900 psi	ASTM D-412
Puncture Resistance	Not less than 80 lb.	ASTM E 154
Low	Unaffected at	ASTM D 146
Temperature	minus 25 degrees F,	
Flexibility	0.063 inch mandrel	
Peel Adhesion	Not less than 5 lb per	ASTM D 903
	inch width on concrete	
	prepared with contact	
	adhesive	
Lap Adhesion	Not less than 5 lb. per inch width	ASTM D 1876
	inch width	
Water	Not more than 0.05 Perm	ASTM E-96,
Vapor		Method B
Permeance		
Water Absorption	Not more than 0.12	ASTM D 570
	percent by weight	

# 1.6 SUBMITTALS

- A. At bid submission, provide evidence to the Restoration Design Professional of installer qualification by Manufacturer.
- B. Shop drawings showing locations of through-wall flashing and details of all typical conditions.
- C. Manufacturer's technical data sheets and material safety data sheets for Product and Accessories.

- D. Manufacturer's installation instructions.
- E. Manufacturer's documentation of volatile organic compounds (VOC) content for Product and Accessories.
- G. Certification of compatibility by Manufacturer, listing all materials on the Project with which the Product and Accessories may come into contact.
- H. Samples of Product minimum 3 inch by 4 inch size.

# 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Installer shall be experienced in applying the same or similar materials and shall be specifically approved in writing by Manufacturer.
- B. Single-Source Responsibility: Obtain Product and Accessories from single manufacturer.
- C. Product and Accessories shall comply with all state and local regulations controlling use of volatile organic compounds (VOCs).
- D. Cooperate and coordinate with the Owner's inspection and testing agency.

  Do not cover any installed Product unless it has been inspected, tested and approved.

# 1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product, lot number and directions for storage.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by Manufacturer.
- C. Protect stored materials from direct sunlight. Do not store cylinders of Aerosol Contact Adhesive above 110 degrees F.
- D. Avoid spillage. Immediately notify Restoration Design Professional if spillage occurs and start clean up procedures. Clean spills and leave area as it was prior to spill.

# 1.9 WASTE MANAGEMENT AND DISPOSAL

- A. Place materials defined as hazardous or toxic waste in designated containers.
- B. Ensure emptied containers are stored safely for disposal away from children.

#### 1.10 PROJECT CONDITIONS

- A. Do not apply during rain or accumulating snowfall.
- B. Applicator shall have full, safe access to area
- C. Apply Product and accessories within temperature range indicated in Manufacturer's literature.
- 1.11 WARRANTIES: Provide the Manufacturer's minimum five year material warranty.

#### PART 2 - PRODUCTS

- 2.1 PRODUCTS: Provide one of the following:
  - A. Carlisle Coatings & Waterproofing CCW-705 TWF
  - B. Hohmann & Barnard X-Barrier
  - C. Enverge FlashGard Thru-Wall Flashing
- 2.2 ACCESSORIES: Provide by same manufacturer as Product in Section 2.1
  - A. Contact Adhesive
  - B. Mastic
  - C. Fill Compound
  - D. Termination Bar

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions affecting installation of the throughwall flashing and accessory products for compliance with requirements. Verify that surfaces and conditions are suitable prior to commencing Work of this section. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Concrete shall be cured for a minimum of seven days.
- C. Surfaces shall be sound, dry and free of oil, grease, dirt, excess mortar or other contaminants.

- D. Surfaces shall be supported and flush at joints without large voids or sharp protrusions.
- E. Ledge, footing, shelf angle or lintel surfaces shall be flat, or preferably sloped to provide drainage to the exterior. Surfaces shall not be oriented so that water can pond on the through-wall flashing.
- F. Inform Restoration Design Professional in writing of anticipated problems applying Product over substrate.

# 3.2 SURFACE PREPARATION

- A. Fill joints and cracks greater than ¼ inch width with Fill Compound struck flush.
- B. Fill inside corners and angle changes with minimum ½ inch tooled bead of Fill Compound.

# 3.3 INSTALLATION

- A. Allow Fill compound used in Article 3.02 to cure fully before applying Product.
- B. Apply Product to sound substrate. Do not apply over mechanically- attached water resistive barrier such as felt, paper or house wrap.
- Prepare all surfaces accepting Product with Contact Adhesive.
   Observe installation instructions, including coverage rates and drying times, indicated in Manufacturer's literature.
- D. Apply Product over prepared surfaces according to Manufacturer's instructions and drawings.
- E. Apply Mastic to edges of Product at laps, cuts and penetrations.
- F. Secure vertical termination of Product with Termination Bar and Mastic, reglet with Mastic, or cast-in-place according to Manufacturer's instructions and drawings.
- G. Keep edge of product at least ½ inch away from exterior finish.

# 3.4 SCHEDULE

- A. Install through-wall flashing during or after construction of back-up wall.
- B. Install through-wall flashing before or during installation of brick veneer.

- C. Lap water resistive barrier over vertical termination of through-wall flashing on back-up wall. Lap and secure water resistive barrier according to water resistive barrier manufacturer's instructions.
- D. Integrate through-wall flashing with adhered membrane air barrier, damp proofing or water-resistive barrier according to Manufacturer's instructions and drawings.

### 3.5 REPAIR AND PROTECTION

- A. Protect from damage during application and remainder of construction period.
- B. Inspect before covering and make repairs according to Manufacturer's instructions.. Remove and replace damaged material.
- C. Product is not designed for permanent exposure. Cover with exterior cladding as soon as schedule allows.
- D. Outdoor exposure of installed Product shall not exceed 60 days.

**END OF SECTION** 

#### **SECTION 09 9113 EXTERIOR PAINTING**

# PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - Primers
  - 2. Epoxy Finish coatings.

### 1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

#### PART 2 - PRODUCTS

# 2.1 MANUFACTURERS

- A. Rust-oleum
- B. Tnemec

# 2.2 PAINT PRODUCTS, GENERAL

- A. Material Compatibility:
  - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer based on testing and field experience.
  - 2. For each coat in a paint system, provide products recommended in writing by topcoat manufacturer for use in paint system and on substrate indicated.
- B. Colors: As selected by Architect from manufacturer's full range

# 2.3 PRIMERS

- A. Surface-Tolerant Metal Primer: Corrosion-resistant, solvent-based metal primer formulated for use on structural steel and metal fabrications that have been minimally prepared. Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer, complying with MPI #79 and compatible with topcoat.
- B. Galvanizing Repair Paint: MPI#18, MPI#19, or SSPC-Paint 20, ASTM A 780.

### 2.4 FINISH COATINGS

- A. High-Build Epoxy Paint, Low Gloss: High-solids, two-component epoxy; formulated for use on exterior concrete, masonry, and primed-metal surfaces.
  - 1. Acceptable products include, but are not limited to:
    - a. "Series 49 Mult-Purpose Epoxy" by Tnemec
    - b. "ROCEpoxy" by Rustoleum

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify suitability of substrates, including surface conditions and compatibility, with finishes and primers.
- B. Proceed with coating application only after unsatisfactory conditions have been corrected.
  - 1. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems specified in this Section.

#### 3.3 INSTALLATION

A. Apply paints in accordance with manufacturer's written instructions.

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

#### 3.4 CLEANING AND PROTECTION

- A. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- B. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- C. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 09 9113