



# JOLIET JUNIOR COLLEGE

---

1901

(Business & Auxiliary Services)  
1215 Houbolt Road  
Joliet, Illinois 60431-8938

## **INSTRUCTIONS TO BIDDERS**

Sealed proposals are invited for **E-BUILDING HEAT WHEEL REPLACEMENT** pursuant to specifications.

### **PROPOSALS:**

Proposals will be received and publicly read aloud by the Joliet Junior College District #525, Joliet, Will County, Illinois, at the place, date and time hereinafter designated.

**PLACE:** [CLICK HERE TO JOIN THE PUBLIC BID OPENING AT THE SPECIFIED DATE/TIME](#)

**DATE:** **SEPTEMBER 23, 2025**

**FAXES ARE NOT ACCEPTABLE**

**TIME:** **9:00 AM**

Proposals received after this time will not be accepted.

Proposals must be submitted through the ESM Solutions electronic sourcing site. Please note that all vendors will have to complete an on-line registration process prior to submitting your proposal. A step-by-step supplier registration guide is posted to the college's website for your reference. General supplier guides are also available on the ESM website. If you have any questions during the registration process, contact ESM Solutions Customer Support (877) 969-7246 Option 3.

Proposals received after the date and time specified shall be considered LATE, and shall not be opened. While the ESM platform is a reliable tool for electronic submissions, vendors should be aware that, as with any online system, occasional technical issues may occur. To mitigate any risk of delayed submissions, vendors are strongly encouraged to complete their bid submissions well in advance of the deadline. Please note that all proposals are electronically sealed and remain confidential until the official bid opening, at which time they become accessible to JJC.

### **Registration Link:**

<https://supplier.esmsolutions.com/registration#/registration/contactInformation/>

### **General Supplier Guide (ESM Documents):**

<https://support.esmsolutions.com/hc/en-us/sections/115000917048-Supplier-Guides>

### **Supplier Registration Guide (JJC Document):**

<https://www.jjc.edu/sites/default/files/Purchasing/FY2019/Supplier%20Registration%20Screenshots%20Final.pdf>

### **PRE-BID MEETING:**

An optional pre-bid meeting will be held on **SEPTEMBER 9, 2025 at 9:00 AM**. The meeting will be at the Main Campus, L Building, Room L1005, 1215 Houbolt Road, Joliet, IL.

**DELIVERY:**

All prices must be quoted F.O.B., Joliet Junior College, 1215 Houbolt Road, Joliet, IL 60431 unless otherwise noted.

**TAX EXEMPTION:**

Joliet Junior College District #525 is exempt from Federal, State, and Municipal taxes.

**SIGNATURE ON BIDS:**

Joliet Junior College District #525 requires the signature on bid documents to be that of an authorized representative of said company.

Each bidder, by making his bid, represents that he has read and understands the bidding documents and that these instructions to bidders are a part of the specifications.

**BIDDING PROCEDURES:**

1. No bid shall be modified, withdrawn, or cancelled for sixty (60) days after the bid opening date without the consent of the College Board of Trustees.
2. Changes or corrections may be made in the bid documents after they have been issued and before bids are received. In such case, a written addendum describing the change or correction will be issued by the College to all bidders of record. Such addendum shall take precedence over that portion of the documents concerned, and shall become part of the bid documents. Except in unusual cases, addendum will be issued to reach the bidders at least five (5) days prior to date established for receipt of bids.
3. Each bidder shall carefully examine all bid documents and all addenda thereto, and shall thoroughly familiarize themselves with the detailed requirements thereof prior to submitting a proposal. Should a bidder find discrepancies or ambiguities in, or omissions from documents, or should they be in doubt as to their meaning, they shall, at once, and in any event, not later than ten (10) days prior to bid due date, notify the College who will, if necessary, send written addendum to all bidders. The college will not be responsible for any oral instructions. All inquiries shall be directed to the Director of Business & Auxiliary Services. After bids are received, no allowance will be made for oversight by bidder.

**SUBSTITUTIONS:**

1. Each bidder represents that his bid is based upon the materials and equipment described in the bidding documents.
2. Any dealer bidding an equal product must specify brand name, model number, and supply specifications of product. The Board shall be the sole judge of whether an article shall be deemed to be equal.
3. A bidder's failure to meet the minimum specifications as listed may result in disqualification of his bid.

**REJECTION OF BIDS:**

The bidder acknowledges the right of the College Board to reject any or all proposals and to waive informality or irregularity in any proposal received and to award each item to different bidders or all

items to a single bidder. In addition, the bidder recognizes the right of the College Board to reject a proposal if the proposal is in any way incomplete or irregular. The College Board may also award, at its discretion, only certain items quoted on. The College Board also reserves the right to reject the proposal of a Bidder who has previously failed to perform properly or complete on time contracts of a similar nature or a bid of a Bidder when investigation shows that Bidder is not in a position to perform the contract.

#### **BUSINESS ENTERPRISE PROGRAM (BEP):**

##### **MINORITIES, FEMALES, AND PERSONS WITH DISABILITIES PARTICIPATION AND UTILIZATION PLAN:**

Joliet Junior College will make every effort to use local business firms and contract with small, minority-owned, and/or women-owned businesses in the procurement process. Many solicitations contain a goal to include businesses owned and controlled by minorities, females, and persons with disabilities in the College's procurement and contracting processes in accordance with the State of Illinois' Business Enterprise for Minorities, Females, and Persons with Disabilities Act (30 ILCS 575).

**Bidders are highly encouraged to utilize BEP certified suppliers and subcontractors. Bidders will be prompted to note BEP certifications within the ESM electronic bidding system.**

To locate contact information for BEP certified suppliers and contractors, visit:

<https://supplierdiversitymanagementportal.illinois.gov/VendorDirectory.aspx>

#### **PROPRIETARY INFORMATION:**

Vendor should be aware that the contents of all submitted bids are subject to public review and will be subject to the Illinois Freedom of Information Act. All information submitted with your bid will be considered public information unless vendor identifies all proprietary information in the proposal by clearly marking on the top of each page so considered, "Proprietary Information." The Illinois Attorney General shall make a final determination of what constitutes proprietary information or trade secrets. While JJC will endeavor to maintain all submitted information deemed proprietary within JJC, JJC will not be liable for the release of such information.

#### **ACKNOWLEDGEMENT OF ADDENDA:**

Signature of company official on original document shall be construed as acknowledgement of receipt of any and all addenda pertaining to this specific proposal. Identification by number of addenda and date issued should be noted on all proposals submitted.

#### **FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA ON PROPOSAL SUBMITTED MAY RESULT IN DISQUALIFICATION OF PROPOSAL.**

**Bidders who obtain a copy of the bid from our web site are responsible for checking back on the site for any addenda issued.**

#### **CLERICAL ERRORS:**

If applicable, all errors in price extensions will be corrected by Joliet Junior College and totals for award determination corrected accordingly, unless the bidder specifies that no change be made in the total submitted. In this case, all incorrect price extensions will be noted at "lot", and award determination made on the basis of total price submitted.

**SAMPLES:**

Bidder may be required to furnish samples upon request and without charge to the College.

**BID SECURITY:**

A certified check or bank draft or bid bond, made payable to Joliet Junior College District #525, Will County, Illinois, **MUST** be submitted with the bid in the amount of **ten (10) percent of your total bid**. The bid security will be forfeited by the successful bidder in the event of the bidders failure to enter into a contract. Checks or drafts of unsuccessful bidders will be returned as soon as practicable after opening and checking the bids.

**PAYMENTS:**

Certified Payroll

1. With each pay application, contractors shall submit certified payroll in a format acceptable to Junior College District #525.

Partial Lien Waivers

1. The contractors' partial lien waiver, for the full amount of the payment, shall accompany the first payment application. Each subsequent payment application shall be accompanied by the contractor's partial waiver, and by partial waivers from all subcontractors and suppliers who were included in the immediately preceding payment application, to the extent of that payment.
2. Lien waivers from the Contractor and all subcontractors and suppliers shall accompany the first payment application when the amount of payment exceeds 50 percent of the total contract sum.

Final Lien Waivers: The contractor's request for final payment shall include:

1. The contractor's final lien waiver in the full amount of the contract.
2. Final lien waivers in the full amount of their contracts from all subcontractors and suppliers for which final lien waivers have not previously been submitted.

**INSURANCE:**

The successful bidder will be required to furnish a certificate of insurance in the following amounts:

The insurance coverage required here-in-under shall be the minimum amounts maintained by the Contractor and Subcontractors until all Work is completed and accepted by the Owner.

The Contractor will purchase and maintain "all risks" Builder's Risk property insurance, where applicable, subject only to such exclusions as have been specifically approved by the Owner in writing.

A. Workers Compensation

1. State: Statutory
2. Applicable Federal: Statutory
3. Employer's Liability:
  - a. \$1,000,000 per Accident
  - b. \$1,000,000 Occupational Disease

B. Commercial Comprehensive Liability

1. Each Occurrence: \$1,000,000
2. Products/Completed Operations Aggregate: \$2,000,000
3. Personal/Advertising Injury: \$1,000,000
4. General Aggregate: \$2,000,000
5. Policy shall include: \$2,000,000
  - a. Premises: Operations
  - b. Independent Contractors Liability
  - c. Products and Completed Operations: Maintained for minimum of one year after date of final Certificate for Payment, in full amount of the limits specified above.
  - d. Contractual Liability
  - e. Coverage for explosion (x), collapse (c), and underground (u).
6. The Commercial Comprehensive Liability policy shall include a contractual liability endorsement insuring the indemnity required by the contract. The indemnities shall be named as additional insured on the Contractor's Commercial Comprehensive Liability policy using Form CG 20 10 or its equivalent and shall name Joliet Junior College, its Board of Trustees, officers, employees and agents as additional named insured's at a minimum. The Contractor hereby agrees to effectuate the naming of such additional insured's as unrestricted additional insured's on the Contractor's policy. The additional insured endorsement shall provide the following:
  - a. That the coverage afforded the additional insurance will be primary/non-contributory insurance for the additional insurance with respect to claims arising out of operations performed by or on behalf of the Contractor.
  - b. That the policy shall contain a thirty (30) day notice of cancellation prior to the effective date thereof.
  - c. That the additional insureds have other insurance which is applicable to the loss, such other insurance will be on an excess or contingent basis.
  - d. That the amount of the company's liability under the insurance policy will not be reduced by the existence of such other insurance.
  - e. That the additional insureds will not be given less than thirty (30) days prior written notice of any cancellation thereof.
  - f. That the Contractor agrees to indemnify the College for any applicable deductibles.
  - g. That the insurance policy from an A.M. Best rated "secured" Illinois State licensed insurer.
  - h. The Contractor shall provide the College with a copy of its insurance policy or in the alternative and subject to the College's agreement, an excerpt of a page from the actual policy evidencing the additional insureds as provided for herein.
  - i. Contactor acknowledges that failure to obtain such insurance on behalf of the College constitutes a material breach of the contract and subjects Contractor to liability for damages, indemnification and all other legal remedies available to College. The Contractor is to provide the College at all times with a certificate of insurance, evidencing the above requirements have been met. The failure of the College to object to the contents of the certificate or the absence of it shall not be deemed a waiver of any and all rights held by the College.

- j. That enclosed is a copy of the endorsement providing additional insured's status and that the Contractor will furnish a Certificate of insurance evidencing the foregoing provisions.
- k. Please include clause below in the policy:  
It is agreed that Joliet Junior College, its Board of Trustees, officers, employees, agents and (Architect/Engineer Name) are additional insureds on the policy.

C. Business Auto Liability (including owned, non-owned and hired vehicles).

- 1. Bodily injury
  - a. \$1,000,000 per person
  - b. \$2,000,000 per accident
- 2. Property damage: \$1,000,000      OR
- 3. Combined Single limit: \$1,000,000

D. Umbrella

- 1. Umbrella Excess Liability: \$4,000,000
- 2. If the Contractor's Workers Compensation, Commercial General Liability and Business Auto policies do not have these minimum limits, an Umbrella policy written by an insurance company acceptable to the Owner may be used to meet the minimum limits required.
- 3. Follow-form or Primary/Non-Contributory (PNC) status and Waiver of Subrogation (WOS) for Joliet Junior College

All such policies of insurance shall be written by companies approved by the College and Certificates of Insurance shall be furnished to the College. The College shall be listed as an additional named insured under such policies. Each policy shall require at least 30 days' notice to the College in the event of cancellation. The contractor agrees to indemnify, defend, and hold harmless the College from and against all suits or claims, which may be based upon any injury to or death of any person or persons or damage to property, which may occur or which may be alleged to have occurred in the course of the performance of this Agreement by the Contractor, whether such sum claim shall be made by an employee of the Contractor, by a third person or their representatives, or whether or not it shall be claimed that the said injury, death, or damage or cause through a negligence act or omission of the Contractor; and the all charges of attorneys and all costs and other expenses arising there from or incurred in connection therewith; and if any judgment shall be rendered against the College in any such action or actions, the Contractor, at its own expense, shall satisfy and discharge the same.

**PERFORMANCE BONDS:**

The successful bidder on this proposal must furnish a performance bond and a labor and material payment bond made out to Junior College District #525, prepared on an approved form, as security for the faithful performance of their contract, within ten (10) days of their notification that their bid has been accepted. The surety thereon must be such surety company or companies as are authorized and licensed to transact business in the State of Illinois and have an A-XIV best rating. Attorneys in fact who sign bid bonds must file with each bond a certified copy of their power of attorney to sign said bonds. The performance bond is an amount equal to one hundred and ten percent (110%) of the contract sum. Such bonds shall be in force from the date of signing of the contract until one year after issuing of final certificate of payment. The cost of the bonds shall be included in the bidder's proposal.

**LAWS AND ORDINANCES:**

In execution of the work, the Contractor shall comply with applicable state and local laws, ordinances and regulation, the rules and regulations of the Board of Fire Underwriters, and OSHA standards.

**SEX OFFENDER REGISTRATION REQUIREMENT NOTIFICATION:**

Illinois Compiled Statutes (730 ILCS 150/2) requires that any person who is required by law to register as a sex offender and who is either a student or an employee at an institution of higher education, must also register with the police department of the institution they are employed by or attending. For purposes of this act, a student or employee is defined as anyone working at or attending the institution for a period of five (5) days or an aggregate period of more than thirty (30) days during a calendar year. This includes persons operating as or employed by an outside contractor at the institution. Anyone meeting the above requirements is required to register at the Campus Police Department located in G1013, within five (5) days of enrolling or becoming employed. Persons failing to register are subject to criminal prosecution.

**DAMAGE AND NEGLIGENCE:**

The Contractor agrees to indemnify and save harmless the College and employees from and against all loss, including costs and attorney's fees, by reasons or liability imposed by law upon the College for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damage to property including loss of use thereof as provided in the General Conditions and Supplementary Conditions.

College shall not be responsible for damages, delays, or failure to perform on its part resulting from acts or occurrences of force majeure. "Force majeure" means any (a) act of God, landslide, lightning, earthquake, hurricane, tornado, blizzard, floods and other adverse and inclement weather conditions; (b) fire, explosion, flood, acts of a public enemy, war, blockade, insurrection, riot or civil disturbance; (c) labor dispute, strike, work slow down, picketing, primary boycotts, secondary boycotts or boycotts of any kind and nature, or work stoppages; (d) any law, order, regulation ordinance, or requirement of any government or legal body or any representative of any such government or legal body; (e) inability to secure necessary materials, equipment, parts or other components of the project as a result of transportation difficulties, fuel or energy shortages, or acts or omission of any common carriers; or (f) any other similar cause or similar event beyond the reasonable control of College.

**INVESTIGATION OF BIDDERS:**

The College will make any necessary investigation to determine the ability of the bidder to fulfill the proposal requirements. Joliet Junior College reserves the right to reject any proposal if it is determined that the bidder is not properly qualified to carry out the obligation of the contract.

**DISCLOSURE:**

Vendor shall note any and all relationships that might be a conflict of interest and include such information with the bid.

**APPRENTICESHIP AND TRAINING PROGRAMS:**

The bidder and all bidder's subcontractors must participate in applicable apprenticeship and training programs approved by and registered with the United States Department of Labor Bureau of Apprenticeship and Training. The apprenticeship and training programs(s) must be in the same trade

in which the firm shall be performing work on behalf of the College under the Contract. This provision shall not apply to federally funded construction projects if, in the opinion of College, such application would jeopardize the receipt or use of federal funds in support of such project.

**A STATEMENT TO THE ABOVE EFFECT HAS BEEN ADDED TO THE BID FORM. BIDDERS MUST BE A MEMBER OF AN APPROVED APPRENTICESHIP PROGRAM PRIOR TO BID OPENING ON THE PROJECT. FAILURE TO LIST REQUIRED INFORMATION MAY RESULT IN DISQUALIFICATION OF BID”.**

#### **SUBCONTRACTORS:**

Bidders must state on the proposal form all subcontractors he intends to use for this project. Failure to do so may be cause for rejection of bid.

#### **PREVAILING WAGE RATE:**

The successful bidder must pay not less than the prevailing hourly wage rate determined by the Illinois Department of Labor for the county where the contract is executed and the craft or type of worker needed to execute the contract. See the prevailing wage scale attached.

If, during the course of work under this contract, the Department of Labor revises the prevailing rate hourly wages to be paid under this contract for any trade or occupation, Owner, will notify Contractor and each Subcontractor of the changes in the prevailing rate of hourly wages. Contractor shall have the sole responsibility and duty to ensure that the revised prevailing rate of hourly wages is paid by contractor and all Subcontractors to each worker to whom a revised rate is applicable. Revisions to the prevailing wage as set forth above shall not result in an increase in the Contract Sum.

In compliance with the Office of the Attorney General the following is also required of all bidders:

#### **Payment of Prevailing Wage:**

- The Act requires that all laborers, workers and mechanics employed by or on behalf of a public body in the construction of public works be paid the general prevailing rate of hourly wages (including allotments for training and approved apprenticeship programs, health and welfare, insurance, vacation and pension benefits) for work of a similar character in the locality in which the work is performed. See 820 ILCS 103/3. The Act contains all relevant definitions, including those for the terms “public body”, “public works” and “general prevailing rate of hourly wages”, which will assist you in the understanding its requirements and your responsibilities. See 820 ILCS 130/2.
- The Illinois Department of Labor publishes the current prevailing wage rate. See <http://www.state.il.us/agency/idol/rates/rates.htm>. The rate is revised regularly and such revision takes effect immediately.

#### **Specifications and Contractual Language:**

- Public bodies must insert a provision or stipulation requiring the payment of the prevailing wage rate into every public works resolution or ordinance, call for bids, project specification and contract. See 820 ILCS 130/4(a).
- Contractors and subcontractors must insert a provision or stipulation regarding the payment of the prevailing wage rate into every public works project and bid specification, subcontract, and contractor’s bond. See 820 ILCS 130/4(b), (c).
- Contractors or construction managers who have been awarded public works contracts must post the relevant prevailing wage rate(s) at a location on the project site that is easily accessible by workers. See 820 ILCS 130/4(f).



**Record-Keeping Responsibilities:**

- All contractors and subcontractors must create and keep for at least three years, records of all laborers, mechanics, and other workers employed by them on a public works project. See 820 ILCS 130/5(a) (1).
- These records must include each worker's name, address, telephone number (if available), social security number, classification(s), hourly wages paid in each pay period, number of hours worked each day, and the starting and ending times of each work day. Each contractor and subcontractor is required to make these records available for inspection by the public body's agents or Illinois Department of Labor officials at a reasonable time and place upon seven business days notice. See 820 ILCS 130/5(a) (1), (b).

**Certified Payroll Records:**

- A contractor or subcontractor participating in a public works project must also submit a Certified Payroll the public body every month. This Certified Payroll must consist of a complete copy of the records required to be kept under Section 5(a)(1) of the Act, discussed above (with the exception of daily work starting and ending times). See 820 ILCS 130/5(a)(2).
- The monthly Certified Payroll shall also include a statement signed by the contractor or subcontractor submitting that: (1) the records are true and accurate; (2) the hourly rate paid to each worker is not less than the general prevailing wage rate required; and (3) the contractor or subcontractor is aware that filing a Certified Payroll that he or she knows to be false is a class B misdemeanor. See 820 ILCS 130/5(a)(2).
- The Act requires that a public body shall keep all Certified Payrolls submitted pursuant to the Act for at least three years. See 820 ILCS 130/5(a)(2). The retention of these monthly Certified Payroll submissions for three years by public bodies is crucial to the State of Illinois' efforts to enforce the Act and will be of particular interest to the Attorney General's office in the coming months.

**Failure to comply with the Act's Requirements:**

- No public works project may be instituted unless the provisions of the Act have been met. The Illinois Department of Labor is empowered to sue for injunctive relief against the awarding of any public works contract, or continuation of work under any such contract, if it is not in compliance with the Act's prerequisites. Contracts that are not in compliance with the Act's prerequisites are void as against public policy. See 820 ILCS 103/11.

Please note that this is not a complete list of all relevant requirements and prerequisites under the Act. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties. For a full understanding of all of the Act's requirements and prerequisites, as well as the text of the Act and all related regulations, please see the Illinois Department of Labor's website at [www.state.il.us/agency/idol/laws/Law130.htm](http://www.state.il.us/agency/idol/laws/Law130.htm).

**BLACKOUT PERIOD:**

After the College has advertised for bids, no pre-bid vendor shall contact any College officer(s) or employee(s) involved in the solicitation process, except for interpretation of bid specifications, clarification of bid submission requirements or any information pertaining to pre-bid conferences. Such bidders or sub-bidders making such request shall be made in writing at least seven (7) days prior to the date for receipt of bids. No vendor shall visit or contact any College officers or employees until after the bids are awarded, except in those instances when site inspection is a

prerequisite for the submission of a bid. During the black-out period, any such visitation, solicitation or sales call by any representative of a prospective vendor in violation of this provision may cause the disqualification of such bidder's response.

**BID QUANTITIES:**

The College Board will reserve the right to increase or decrease, within reasonable limits, such quantities as need requires and at the unit price stated.

**BID AWARDS:**

The successful contractor, and/or any contractor shall not proceed on this bid until it receives a purchase order from the college. Failure to comply is the risk of that contractor.

**TERMINATION OF FUNDING:**

JJC's contractual obligations will be subject to termination and cancellation without penalty, accelerated payment, or other recoupment mechanism as provided herein in any fiscal year for which the Illinois General Assembly or other legally applicable funding source fails to make an appropriation to make payments under the terms of this Contract. In the event of termination for lack of appropriation, the Vendor shall be paid for services performed under this Contract up to the effective date of termination. JJC shall give notice of such termination for funding as soon as practicable after JJC becomes aware of the failure of funding.

**CHANGES TO CONTRACT AFTER BID AWARD:**

There shall be no deviations from any work without a written change order. All change orders must be approved by the Director of Business & Auxiliary Services or Vice President of Administrative Services as well as executed by the successful contractor.

If a change order or aggregate of change orders are 10% or more of the contract price, and such change orders are not approved, in writing, by either the Director of Business & Auxiliary Services or Vice President of Administrative Services, the successful contractor shall not be entitled to any type of compensation for services or materials provided.

**GENERAL:**

Joliet Junior College is committed to a policy of non-discrimination on the basis of sex, handicap, race, color, and national or ethnic origin in the admission, employment, educational programs, and activities it operates. Inquiries should be addressed to the Director of Human Resources.

The contractor (or vendor) shall agree to save and hold harmless the Joliet Junior College District #525, the members of its College Board, its agents, servants and employees, from any and all actions or causes of action, or claim for damages, including the expense of defending suit, arising or growing out of the performance of, or failure to perform its contract.

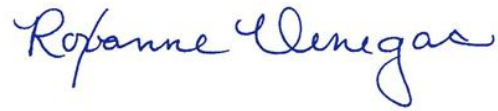
The parties to any contract (inclusive of subcontractors) resulting from this bid hereto shall abide by the requirements of Executive Order 11246, 42 U.S.C. Section 2000d and the regulations thereto, as may be amended from time to time, the Illinois Human Rights Act, and the Rules and Regulations of the Illinois Department of Human Rights. Any vendor awarded a contract as a result of this bid must comply with the Illinois Department of Human Rights Equal Opportunity Act/Rules Sections 750.5 and 5/2-105.

Pursuant to Section 50-80 of the Illinois Procurement Code, each bidder who submits a bid or offer for a State of Illinois contract under this Code shall have a sexual harassment policy in accordance

B26004

with paragraph (4) of subsection (A) of Section 2-105 of the Illinois Human Rights Act. A copy of the policy shall be provided to the college entering into the contract upon request.

The Customer reserves the right to request additional information after your proposal has been submitted.



---

Roxanne Venegas  
Purchasing Manager

JOLIET JUNIOR COLLEGE  
ILLINOIS COMMUNITY COLLEGE DISTRICT #525  
(Business & Auxiliary Services)  
1215 Houbolt Road  
Joliet, Illinois 60431-8938  
Telephone: (815) 280-6640  
Fax: (815) 280-6631

**INFORMATION PERTAINING TO OUR BIDS CAN BE FOUND AT THE FOLLOWING WEBSITE:**  
<http://www.jjc.edu/community/vendors>

**QUESTIONS PERTAINING TO OUR BIDS CAN BE EMAILED TO:**  
[purchasing@jjc.edu](mailto:purchasing@jjc.edu)



## E Building Heat Wheel Replacement– SCOPE OF WORK

### 1.0 OVERVIEW OF THE PROJECT

#### 1.1 General Project Information

Joliet Junior College is undertaking a mechanical upgrade project in the K Building to **replace existing heat wheels**. The project also includes **associated piping modifications**, which must be submitted as a **separately priced alternate bid**. All bidders are **required** to provide pricing for the alternate bid; however, the Owner may choose whether or not to accept the alternate during bid evaluation.

The construction of this project will be completed through a public bid process for a general contractor award. For the duration of this document, the term "contractor" shall be interpreted to include the general contractor and/or any subcontractors under their supervision. The general contractor is ultimately responsible for the completion of the project, including all required materials and labor as outlined in the drawings, specifications, addenda, and this scope of work document.

---

#### 1.2 General Description

The Contractor shall provide all labor, materials, equipment, supervision, tools, transportation, testing, inspections, and incidentals necessary to **replace existing heat wheels**.

In addition, the Contractor **must provide a separately priced alternate bid for all piping modifications associated with the heat wheels**, including piping, valves, and fittings as required per the drawings. Submission of the alternate bid is **mandatory**, but acceptance of the alternate bid is at the sole discretion of the Owner.

The intent of this Scope of Work is to provide a turnkey installation of the new heat wheels, including but not limited to:

- Removal and disposal of existing heat wheels.
- Furnishing and installing new heat wheels with manufacturer-recommended accessories.
- Integration with the existing Building Automation System (BAS) for full operational control.
- Ensuring the system is fully operational and tested upon project completion.

#### Required Alternate Bid – Piping Modifications:

- Replace or modify all piping associated with the heat wheels as shown on the drawings.
- Furnish and install all required valves, strainers, check valves, and fittings.
- Pressure test, insulate, and label piping per applicable codes and ASME standards.
- **All bidders must submit pricing for this alternate**, which may or may not be accepted by the Owner.

---

### 1.3 Cost Considerations

No additional costs or change orders will be accepted unless hidden or unforeseen conditions are discovered during demolition or construction. Visible and reasonably verifiable conditions during the pre-bid site walk-through are considered included in the contractor's base bid price. **All bidders are required to submit pricing for the piping modifications as an alternate bid. Acceptance of the alternate bid is at the Owner's discretion.**

---

### 1.4 Conflicts

If there is a conflict between the plans, specifications, or this scope document, the contractor shall provide the most stringent, highest quality, or greatest quantity of work and/or materials, unless otherwise directed by a written addendum or the contract.

---

### 1.5 Inspections & Permits

There will be no permit process or inspections by the City of Joliet. However, the contractor shall be responsible for contacting the state fire marshal for inspections if required. The architect/engineer (A/E) will provide inspections during the punch list phase.

---

### 1.6 Contractor Responsibilities

- Contractor shall provide this scope of work and all drawings to subcontractors during bidding and construction.
  - Work hours, safety requirements, temporary lighting/power, and site protection remain the responsibility of the contractor.
  - Loud or disruptive work may need to occur during off-hours (10:00pm–6:00am).
  - Coordination with existing fire alarm system and BAS is required.
- 

## 2.0 Mechanical Work

### 2.1 Heat Wheel Replacement (Base Bid)

- Remove existing heat wheels and associated duct connections.
- Furnish and install new heat wheels, including fans, motors, drive assemblies, and ductwork adapters.

- Ensure proper alignment, vibration isolation, and anchoring per manufacturer recommendations.
- Test operation to verify airflow, efficiency, and integration with existing AHU systems.

## 2.2 Piping Modifications (Required Alternate Bid)

- Replace or modify all piping associated with the heat wheels, including hot water, chilled water, and condensate connections.
  - Furnish and install all required valves, strainers, check valves, and fittings.
  - Pressure test piping prior to insulation and commissioning.
  - Insulate piping per energy code requirements with appropriate vapor barrier.
  - Label piping per ASME standards.
  - **All bidders are required to submit pricing**, but acceptance of this alternate bid is at the Owner's discretion.
- 

## 2.3 Insulation

- Insulate all newly installed and modified piping.
  - Insulate ductwork if disturbed during heat wheel replacement.
  - Provide protective jacketing on exposed insulation where required.
- 

## 3.0 Building Automation / Controls

- Integrate new heat wheels and any piping modifications accepted by the Owner into the existing Johnson Controls BAS.
  - Provide all necessary sensors, actuators, control valves, and wiring.
  - Verify full operational control, monitoring, alarming, scheduling, and trending.
  - Provide owner training on new system operation.
- 

## 4.0 Electrical

- Provide power connections to heat wheel motors and any associated accessories.
  - Provide conduit, wiring, breakers, and disconnects per NEC and local codes.
  - Provide temporary and permanent lighting as required for safe operation.
- 

## 5.0 Commissioning / Closeout

- Perform startup, balancing, and commissioning of heat wheels and any piping modifications accepted by the Owner.
  - Test and Balance (TAB) by an independent certified contractor.
  - Demonstrate full system operation to the owner.
  - Submit O&M manuals, as-builts, and warranty information.
  - Provide a minimum 1-year warranty on labor and materials.
- 

## **6.0 General Conditions**

- Verify all dimensions and existing conditions in the field.
  - Protect adjacent areas and restore any damaged finishes.
  - Maintain clean and safe work environment daily.
  - Conduct weekly project meetings with stakeholders.
  - Maintain project documentation, including RFI logs, submittals, material procurement logs, and schedules.
- 

## **7.0 Project Closeout**

- Complete as-built drawings and documents.
- Provide all O&M manuals and training.
- Submit energy rebate forms if applicable.
- Provide warranties and lien waivers.
- Complete punch list and issue certificate of substantial completion.



**SECTION 21 05 00****BASIC FIRE SUPPRESSION REQUIREMENTS****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Requirements applicable to all Division 21 Sections. Also refer to Division 1 - General Requirements.
- B. All materials and installation methods shall conform to the applicable standards, guidelines and codes referenced in the specification section.

**1.2 QUALITY ASSURANCE**

- A. Contractor's Responsibility Prior to Submitting Pricing Data:
  - 1. The Contractor is responsible for constructing complete and operating systems. The Contractor acknowledges and understands that the Contract Documents are a two-dimensional representation of a three-dimensional object, subject to human interpretation. This representation may include imperfect data, interpreted codes, utility guidelines, three-dimensional conflicts, and required field coordination items. Such deficiencies can be corrected when identified prior to ordering material and starting installation. The Contractor agrees to carefully study and compare the individual Contract Documents and report at once in writing to the Design Team any deficiencies the Contractor may discover. The Contractor further agrees to require each subcontractor to likewise study the documents and report at once any deficiencies discovered.
  - 2. The Contractor shall resolve all reported deficiencies with the Engineer prior to awarding any subcontracts, ordering material, or starting any work with the Contractor's own employees. Any work performed prior to receipt of instructions from the Design Team will be done at the Contractor's risk.
- B. Qualifications:
  - 1. Only products of reputable manufacturers are acceptable.
  - 2. All Contractors and subcontractors shall employ only workers skilled in their trades.
- C. Compliance with Codes, Laws, Ordinances:
  - 1. Conform to all requirements of the City of Joliet, IL Codes, Laws, Ordinances and other regulations having jurisdiction.
  - 2. Conform to all published standards of Joliet Junior College.
  - 3. Conform to all State Codes.
  - 4. If there is a discrepancy between the codes and regulations and these specifications, the Engineer shall determine the method or equipment used.
  - 5. If the Contractor notes, at the time of bidding, any parts of the drawings or specifications that do not comply with the codes or regulations, he shall inform

the Architect/Engineer in writing, requesting a clarification. If there is insufficient time for this procedure, he shall submit with his proposal a separate price to make the system comply with the codes and regulations.

6. All changes to the system made after letting of the contract, to comply with codes or requirements of Inspectors, shall be made by the Contractor without cost to the Owner.
7. If there is a discrepancy between manufacturer's recommendations and these specifications, the manufacturer's recommendations shall govern.

D. Permits, Fees, Taxes, Inspections:

1. Procure all applicable permits and licenses.
2. Abide by all laws, regulations, ordinances, and other rules of the State or Political Subdivision where the work is done, or as required by any duly constituted public authority.
3. Pay all charges for permits or licenses.
4. Pay all fees and taxes imposed by the State, Municipal and/or other regulatory bodies.
5. Pay all charges arising out of required inspections by an authorized body.
6. Pay all charges arising out of required contract document reviews associated with the project and as initiated by the Owner or authorized agency/consultant.
7. Where applicable, all fixtures, equipment and materials shall be approved or listed by Underwriter's Laboratories, Inc.

E. Examination of Drawings:

1. The drawings for the fire protection work are completely diagrammatic, intended to convey the scope of the work and to indicate the general arrangements and locations of equipment, outlets, etc., and the approximate sizes of equipment.
2. Contractor shall determine the exact locations of equipment and rough-ins, and the exact routing of pipes and ducts to best fit the layout of the job.
3. Scaling of the drawings is not sufficient or accurate for determining these locations.
4. Where job conditions require reasonable changes in indicated arrangements and locations, such changes shall be made by the Contractor at no additional cost to the Owner.
5. Because of the scale of the drawings, certain basic items, such as fittings, boxes, valves, unions, etc., may not be shown, but where required by other sections of the specifications or required for proper installation of the work, such items shall be furnished and installed.
6. If an item is either on the drawings or in the specifications, it shall be included in this contract.

7. Determination of quantities of material and equipment required shall be made by the Contractor from the documents. Where discrepancies arise between drawings, schedules and/or specifications, the greater number shall govern.
8. Where used in fire protection documents, the word "furnish" shall mean supply for use, the word "install" shall mean connect complete and ready for operation, and the word "provide" shall mean to supply for use and connect complete and ready for operation.
  - a. Any item listed as furnished shall also be installed, unless otherwise noted.
  - b. Any item listed as installed shall also be furnished, unless otherwise noted.

F. Field Measurements:

1. Verify all pertinent dimensions at the job site before ordering any materials or fabricating any supports, pipes or ducts.

G. Electronic Media/Files:

1. Construction drawings for this project have been prepared utilizing Revit 2025.
2. Contractors and Subcontractors may request electronic media files of the contract drawings and/or copies of the specifications. Specifications will be provided in PDF format.
3. Upon request for electronic media, the Contractor shall complete and return a signed "Electronic File Transmittal" form provided by IMEG.
4. If the information requested includes floor plans prepared by others, the Contractor will be responsible for obtaining approval from the appropriate Design Professional for use of that part of the document.
5. The electronic contract documents can be used for preparation of shop drawings and as-built drawings only. The information may not be used in whole or in part for any other project.
6. The drawings prepared by IMEG for bidding purposes may not be used directly for ductwork layout drawings or coordination drawings.
7. The use of these CAD documents by the Contractor does not relieve them from their responsibility for coordination of work with other trades and verification of space available for the installation.
8. The information is provided to expedite the project and assist the Contractor with no guarantee by IMEG as to the accuracy or correctness of the information provided. IMEG accepts no responsibility or liability for the Contractor's use of these documents.

### 1.3 SUBMITTALS

- A. Submittals shall be required for the following items, and for additional items where required elsewhere in the specifications or on the drawings.

1. Submittals list:

Submittal Item	Referenced Specification Section 21 13 00
a. Fire Protection Equipment	

- B. In addition to the provisions of Division 1, the following provisions are required:

1. Submittals shall include all fabrication, erection, layout, and setting drawings; manufacturers' standard drawings; schedules; descriptive literature, catalogs and brochures; performance and test data; wiring and control diagrams; and all other drawings and descriptive data of materials of construction as may be required to show that the materials, equipment or systems and the location thereof conform to the requirements of the contract documents.
2. The Contractor shall submit seven (7) copies of each shop drawing for review by the Architect/Engineer BEFORE releasing any equipment for manufacture or shipment.
3. Shop drawings which are larger than 11"x 17" or are plan size layout or erection drawings such as sprinkler system drawings shall be submitted on reproducible media. Submit one reproducible and one print of each drawing or plan. All Contractor approval stamps shall be made on the reproducible.
4. The Contractor shall thoroughly review and approve all shop drawings before submitting them to the Architect/Engineer. CONTRACTOR'S APPROVAL STAMP IS REQUIRED ON ALL SUBMITTALS. APPROVAL WILL INDICATE THE CONTRACTOR'S REVIEW of all material and a COMPLETE UNDERSTANDING OF EXACTLY WHAT IS TO BE FURNISHED. Contractor shall clearly mark all deviations from the contract documents on all submittals. IF DEVIATIONS ARE NOT MARKED BY THE CONTRACTOR, THEN THE ITEM SHALL BE REQUIRED TO MEET ALL DRAWING AND SPECIFICATION REQUIREMENTS.
5. The Contractor shall clearly mark each item with the same nomenclature applied on the drawings or in the specifications.
6. The Contractor shall clearly indicate the size, finish, material, etc.
7. Assemble and submit by specification section numbers for all submittals. All sets shall be identical and contain an index of the items enclosed with a general topic description on the cover.
8. Each set shall be bound in a manufacturer's folder or inside of a manila file folder.
9. Where more than one model is shown on a manufacturer's sheet, the Contractor shall clearly indicate exactly which item and which data is relevant to the work.
10. Failure to comply with the above shall be reason to resubmit all shop drawing submittals.

11. The Engineer's responsibility shall be to review one set of shop drawing submittals for each product. If the first submittal is incomplete or does not comply with the drawings and/or specifications, the Contractor shall be responsible to bear the cost for the Engineer to recheck and handle the additional shop drawing submittals.

#### **1.4 PRODUCT DELIVERY, STORAGE, HANDLING & MAINTENANCE**

- A. Exercise care in transporting and handling to avoid damage to materials. Store materials on the site to prevent damage. Keep materials clean, dry and free from harmful conditions. Immediately remove any materials that become wet or that are suspected of becoming contaminated with mold or other organisms.
- B. Contractor is responsible for moving equipment into the building and/or site. Contractor shall review site prior to bid for path locations and any required building modifications to allow movement of equipment. Contractor shall coordinate his/her work with other trades.

#### **1.5 WARRANTY**

- A. Provide two-year warranty, unless otherwise noted, to the Owner for all fixtures, equipment, materials, and workmanship.
- B. The warranty period for all work in this Division of the specifications shall commence on the date of final acceptance, unless a whole or partial system or any separate piece of equipment or component is put into use for the benefit of any party other than the installing contractor with prior written authorization. In this instance, the warranty period shall commence on the date when such whole system, partial system or separate piece of equipment or component is placed in operation and accepted in writing by the Owner.
- C. Warranty requirements shall extend to correction, without cost to the Owner, of all Work found to be defective or nonconforming to the contract documents. The Contractor shall bear the cost of correcting all damage resulting from defects or nonconformance with contract documents.

#### **1.6 INSURANCE**

- A. Contractor shall maintain insurance coverage as set forth in Division 0 of these specifications.

#### **1.7 MATERIAL SUBSTITUTION**

- A. Where several manufacturers' names are given, the manufacturer for which a catalog number is given is the basis for job design and establishes the quality required.
- B. Equivalent equipment manufactured by the other named manufacturers may be used. Contractor shall ensure that all items submitted by these other manufacturers meet all requirements of the drawings and specifications, and fits in the allocated space.
- C. Any material, article or equipment of other unnamed manufacturers which will adequately perform the services and duties imposed by the design and is of a quality equal to or better than the material, article or equipment identified by the drawings and specifications may be used if approval is secured in writing from the Architect/Engineer not later than ten days prior to the bid opening.

- D. This Contractor assumes all costs incurred as a result of using the offered material, article or equipment, on his part or on the part of other Contractors whose work is affected.
- E. This Contractor may list voluntary add or deduct prices for alternate materials on the bid form. These items will not be used in determining the low bidder.
- F. All material substitutions requested later than ten (10) days prior to bid opening must be listed as voluntary changes on the bid form.

## **PART 2 - PRODUCTS**

NOT APPLICABLE

## **PART 3 - EXECUTION**

### **3.1 JOBSITE SAFETY**

- A. Neither the professional activities of the Engineer, nor the presence of the Engineer or his or her employee and subconsultants at a construction site, shall relieve the Contractor and other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. The Engineer and his or her personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Contractor is solely responsible for jobsite safety. The Engineer and the Engineer's consultants shall be indemnified and shall be made additional insureds under the Contractor's general liability insurance policy.

### **3.2 ENGINEER OBSERVATION OF WORK**

- A. The Engineer will have the opportunity to review the installation and provide a written report noting deficiencies requiring correction. The Contractor's schedule shall account for these reviews and show them as line items in the approved schedule.
- B. Final Observation
  - 1. All work must be complete prior to the Engineer's review. This includes, but is not limited to:
    - a. Pipe identification is installed.
    - b. Branch piping in the location of sprinklers are installed.
  - 2. In order to prevent the Final Observation from occurring too early, the Contractor shall review the status of the work and certify, in writing, that the work is ready for the Final Observation.
  - 3. It is understood that if the Engineer finds the ceilings have been installed prior to this review and prior to 7 days elapsing, the Engineer may not recommend further payments to the contractor until such time as full access has been provided.

### 3.3 PROJECT CLOSEOUT

- A. The following paragraphs supplement the requirements of Division 1.
- B. Final Jobsite Observation:
  - 1. In order to prevent the Final Jobsite Observation from occurring too early, the Contractor is required to review the completion status of the project and certify that the job is ready for the final jobsite observation.
  - 2. Attached to the end of this section is a typical list of items that represent the degree of job completeness expected prior to requesting a review.
  - 3. Upon Contractor certification that the project is complete and ready for a final punch, the Contractor shall sign the attached certification and return it to the Architect/Engineer so that the final observation can be scheduled.
  - 4. It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.
- C. Before final payment is authorized, This Contractor must submit the following:
  - 1. Operation and maintenance manuals with copies of approved shop drawings.
  - 2. Record documents including marked-up or reproducible drawings and specifications.
  - 3. A report documenting the instructions given to the Owner's representatives complete with the number of hours spent in the instruction. The report shall bear the signature of an authorized agent of This Contractor and shall be signed by the Owner's representatives.
  - 4. Inspection report by the State Fire Marshal of the fire protection system.
  - 5. Start-up reports on all equipment requiring a factory installation inspection or start-up.
  - 6. Provide spare parts, maintenance, and extra materials in quantities specified in individual specification sections. Deliver to project site and place in location as directed; receipt by Architect/Engineer required prior to final payment approval.

### 3.4 RECORD DOCUMENTS

- A. The following paragraph supplements Division 1 requirements:
 

Contractor shall maintain at the job site a separate and complete set of fire protection drawings and specifications on which he shall clearly and permanently mark in complete detail all changes made to the fire protection systems.
- B. Mark drawings to indicate revisions to piping size and location, both exterior and interior; including locations of other control devices, and other units requiring periodic maintenance or repair; actual equipment locations, dimensioned from column lines; actual inverts and locations of underground piping; concealed equipment, dimensioned from column lines; mains and branches of piping systems, with valves and control

devices located and numbered, concealed unions located, and with items requiring maintenance located; Change Orders; concealed control system devices.

- C. Before completion of the project, a set of reproducible fire protection drawings will be given to the Contractor for transfer of all as-built conditions from the paper set maintained at the job site. All marks on reproducibles shall be clear and permanent.
- D. Mark specifications to show approved substitutions; Change Orders, and actual equipment and materials used.
- E. Record changes daily and keep the marked drawings available for the Architect/Engineer's examination at any normal work time.
- F. Upon completing the job, and before final payment is made, give the marked-up drawings to the Architect/Engineer.

### **3.5 ADJUST AND CLEAN**

- A. Thoroughly clean all equipment and systems prior to the Owner's final acceptance of the project. Clean all foreign paint, grease, oil, dirt, labels, stickers, and other foreign material from all equipment.
- B. Clean all areas where moisture is present. Immediately report any mold, biological growth, or water damage.
- C. Remove all rubbish, debris, etc., accumulated during construction from the premises.

### **3.6 SPECIAL REQUIREMENTS**

- A. Contractor shall coordinate the installation of all equipment, valves, etc., with other trades to maintain clear access area for servicing.
- B. All equipment shall be installed in such a way to maximize access to parts needing service or maintenance. Review the final field location, placement, and orientation of equipment with the Owner's designated representative prior to setting equipment.
- C. Installation of equipment or devices without regard to coordination of access requirements and confirmation with the Owner's designated representative will result in removal and reinstallation of the equipment at the Contractor's expense.

### **END OF SECTION**



### READINESS CERTIFICATION PRIOR TO FINAL JOBSITE OBSERVATION

In order to prevent the final job observation from occurring too early, we require that the Contractor review the completion status of the project and, by copy of this document, certify that the job is indeed ready for the final job observation. The following is a typical list of items that represent the degree of job completeness expected prior to your requesting a final job observation.

1. Fire protection system operational.
2. Pipes labeled.

Accepted by:

Prime Contractor \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_

Upon Contractor certification that the project is complete and ready for a final job observation, we require the Contractor to sign this agreement and return it to the Engineer so that the final observation can be scheduled.

It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers for additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.

\* \* \* \* \*

**SECTION 21 05 29****FIRE SUPPRESSION SUPPORTS AND ANCHORS****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Hangers, Supports, and Associated Anchors.

**1.2 WORK FURNISHED BUT INSTALLED UNDER OTHER SECTIONS**

- A. Furnish sleeves and hanger inserts to General Contractor for placement into formwork.

**1.3 REFERENCES**

- A. MSS SP-58 - Pipe Hangers and Supports - Materials, Design, and Manufacture.
- B. MSS SP-69 - Pipe Hangers and Supports - Selection and Application.
- C. MSS SP-89 - Pipe Hangers and Supports - Fabrication and Installation Practices.
- D. NFPA 13 - Standard for the Installation of Sprinkler Systems.

**1.4 QUALITY ASSURANCE**

- A. Support Sprinkler Piping in conformance with NFPA 13.

**1.5 SUBMITTALS**

- A. Submit shop drawings and product data under provisions of Section 21 05 00.

**PART 2 - PRODUCTS****2.1 HANGER RODS**

- A. Hanger rods for single rod hangers shall conform to the following:

Pipe Size	Hanger Rod Diameter Column #1
2" and smaller	3/8"
2-1/2"through 3-1/2"	1/2"
4"	5/8"

Column #1: Steel pipe.

- B. Rods for double rod hangers may be reduced one size. Minimum rod diameter is 3/8 inches.
- C. Hanger rods and accessories used in mechanical spaces or otherwise dry areas shall have ASTM B633 electro-plated zinc finish.

**2.2 PIPE HANGERS AND SUPPORTS**

- A. All pipe hangers, clamps, and supports shall conform to Manufacturers Standardization Society MSS-SP-69.

B. Unless otherwise indicated, hangers shall be as follows:

1. Clevis Type:

Service: Bare Metal Pipe

<u>Acceptable Products:</u>	<u>Bare Steel Pipe</u>
-----------------------------	------------------------

Anvil	Fig. 260
Cooper/B-Line	Fig. 3100
Erico	Model 400
Nibco/Tolco	Fig. 1

2. Adjustable Swivel Ring Type:

Service: Bare Metal Pipe - 4 inches and Smaller

<u>Acceptable Products:</u>	<u>Bare Steel Pipe</u>
-----------------------------	------------------------

Anvil	Fig. 69
Cooper/B-Line	Fig. B3170NF
Erico	Model FCN
Nibco/Tolco	Fig. 200

C. Support may be fabricated from U-Channel strut or similar shapes. Piping less than 4" in diameter shall be secured to strut with clamps of proper design and capacity as required to maintain spacing and alignment. Strut shall be independently supported from hanger drops or building structure. Size and support shall be per manufacturer's installation requirements for structural support of piping. Clamps shall not interrupt piping insulation.

1. Strut used in mechanical spaces or otherwise dry areas shall have ASTM B633 electro-plated zinc finish.

D. Unless otherwise indicated, pipe supports for use with struts shall be as follows:

1. Clamp Type:

Service: Bare Metal Pipe

a. Pipes subject to expansion and contraction shall have clamps slightly oversized to allow limited pipe movement.

<u>Acceptable Products:</u>	<u>Bare Steel Pipe</u>
-----------------------------	------------------------

Unistrut	Fig. P1100 or P2500
Cooper/B-Line	Fig. B2000 or B2400
Nibco/Tolco	Fig. A-14 or 2STR

E. Welding:

1. Unless otherwise noted, hangers, clips, and auxiliary support steel may be welded in lieu of bolting, clamping, or riveting to the building structural frame. Take adequate precautions during all welding operations for fire prevention and for protecting walls and ceilings from being damaged by smoke.

## 2.3 PIPE ANCHORS

A. Provide all items needed to allow adequate expansion and contraction of all piping. All piping shall be supported, guided, aligned, and anchored as required.

B. Repair all piping leaks and associated damage. Pipes shall not rub on any part of the building.

## 2.4 FINISH

- A. Prime coat exposed steel hangers and supports.

## PART 3 - EXECUTION

### 3.1 FIRE SUPPRESSION SUPPORTS AND ANCHORS

- A. Install all items per manufacturer's instructions.
- B. Support all piping and equipment, and accessories to avoid objectionable or excessive stress, deflection, swaying, sagging or vibration in the piping or building structure during erection, cleaning, testing and normal operation of the systems.
- C. Do not, however, restrain piping to cause it to snake or buckle between supports or to prevent proper movement due to expansion and contraction.
- D. Support piping at equipment and valves so they can be disconnected and removed without further supporting the piping.
- E. Piping shall not introduce strains or distortion to connected equipment.
- F. Furnish, install and prime all auxiliary structural steel for support of piping systems that are not shown on the Drawings as being by others.
- G. Install hangers and supports complete with lock nuts, clamps, rods, bolts, couplings, swivels, inserts and required accessories.
- H. Hangers for horizontal piping shall have adequate means of vertical adjustment for alignment.
- I. Parallel horizontal pipes may be supported on trapeze hangers made of structural shapes and hanger rods; otherwise, pipes shall be supported with individual hangers.
- J. Trapeze hangers may be used where ducts interfere with normal pipe hanging.
- K. Coordinate the location and method of support of piping systems with all installations under other Divisions and Sections of the Specifications.
- L. Provided the installation complies with all loading requirements of truss and joist manufacturers, the following practices are acceptable:
  - 1. Loads of 100 lbs. or less may be attached anywhere along the top or bottom chords of trusses or joists with a minimum 3' spacing between loads.
  - 2. Loads greater than 100 lbs. must be hung concentrically and may be hung from top or bottom chord, provided one of the following conditions is met:
    - a. The hanger is attached within 6" from a web/chord joint.
    - b. Additional L2x2x1/4 web reinforcement is installed per manufacturer's requirements.
  - 3. It is prohibited to cantilever a load using an angle or other structural component that is attached to a truss or joist in such a fashion that a torsional force is applied to that structural member.

4. If conditions cannot be met, coordinate installation with truss or joist manufacturer and contact Architect/Engineer.
- M. Do not exceed 25 lbs. per hanger and a minimum spacing of 2'-0" on center when attaching to metal roof decking (limitation not required with concrete on metal deck). This 25 lbs. load and 2'-0" spacing include adjacent electrical and architectural items hanging from deck. If the hanger restrictions cannot be achieved, supplemental framing off steel framing will need to be added.
- N. Do not exceed the manufacturer's recommended maximum load for any hanger or support.
- O. Provide additional supports where pipe changes direction, adjacent to flanged valves and strainers, at equipment connections and heavy fittings.
- P. Provide at least one hanger adjacent to each joint in grooved end steel pipe with mechanical couplings.
- Q. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
- R. Spacing of Hangers shall not exceed the compressive strength of the insulation inserts, and in no case shall exceed the following:

	<u>Pipe Material</u>	<u>Maximum Spacing</u>
1.	Steel (Std. Weight or Heavier – Liquid Service):	
	1-1/4" & under	7'-0"
	1-1/2"	9'-0"
	2"	10'-0"
	2-1/2"	11'-0"
	3"	12'-0"
	4" & larger	12'-0"
2.	Installation of hangers shall conform to MSS SP-69, MSS SP-89 and applicable NFPA standards.	

#### END OF SECTION

**SECTION 21 05 53****FIRE SUPPRESSION IDENTIFICATION****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Identification of products installed under Division 21.

**1.2 REFERENCES**

- A. ANSI/ASME A13.1 - Scheme for the Identification of Piping Systems.

**PART 2 - PRODUCTS****2.1 ACCEPTABLE MANUFACTURERS**

- A. 3M, Bunting, Calpico, Craftmark, Emedco, Kolbi Industries, Seton, W.H. Brady, Marking Services.

**2.2 MATERIALS**

- A. All pipe markers shall conform to ANSI A13.1. Letter sizes shall be at least the following:

<u>O.D. of Pipe or insulation</u>	<u>Size of Letters</u>
Up to 1-1/4"	1/2"
1-1/4"	3/4"
1-1/4" to 2"	1-1/4"
2-1/2" to 6"	2-1/2"

- B. Plastic Pipe Markers: Semi-rigid plastic, preformed to fit around pipe or pipe covering; indicating flow direction and fluid conveyed.
- C. Vinyl Pipe Markers: Colored vinyl with permanent pressure sensitive adhesive backing.

**PART 3 - EXECUTION****3.1 INSTALLATION**

- A. Install all products per manufacturer's recommendations.
- B. Degrease and clean surfaces to receive adhesive for identification materials.
- C. Pipe Markers:
  1. Adhesive Backed Markers: Use Brady Style 1, 2, or 3 on pipes 3" diameter and larger. Use Brady Style 4, 6, or 8 on pipes under 3" diameter. Similar styles by other listed manufacturers are acceptable. Secure all markers at both ends with a wrap of pressure sensitive tape completely around the pipe.
  2. Snap-on Markers: Use Seton "Setmark" on pipes up to 5-7/8" OD. Use Seton "Setmark" with nylon or Velcro ties for pipes 6" OD and over. Similar styles by other listed manufacturers are acceptable.

**3.2 SCHEDULE**

A. Pipes to be marked:

Pipe Service	Lettering Color	Background Color
Sprinkler Water	White	Red

**END OF SECTION**

**SECTION 21 13 00**  
**FIRE PROTECTION SYSTEMS**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Pipe, Fittings, and Connections for Fire Protection System.
- B. Wet-Pipe Sprinkler System.

**1.2 REFERENCES**

- A. ANSI/ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
- B. ANSI/ASME B16.3 - Malleable Iron Threaded Fittings, Class 150 and 300.
- C. ANSI/ASME B16.4 - Cast Iron Threaded Fittings, Class 125 and 250.
- D. ANSI/ASME B16.5 - Pipe Flanges and Flanged Fittings.
- E. ANSI/ASME B16.9 - Factory-made Wrought Steel Butt-Welding Fittings.
- F. IBC - International Building Code.
- G. NFPA 101 - Life Safety Code,
- H. NFPA 13 - Installation of Sprinkler Systems.
- I. NFPA 25 - Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.
- J. UL - Underwriter's Laboratory Fire Protection Equipment Directory.

**1.3 SYSTEM DESCRIPTION**

- A. System shall cover building areas as shown on the drawings.
- B. Provide a wet pipe sprinkler system to NFPA 13 and building code requirements as required by Owner's insurance company and as shown on the drawings.

**1.4 QUALITY ASSURANCE**

- A. Welding Materials and Procedures: Conform to ASME Code.
- B. Equipment and Components: Bear UL label or marking.
- C. Valves: Bear UL label or marking. Provide manufacturer's name and pressure rating
- D. Specialist Firm: Company specializing in sprinkler systems with minimum three years experience.
- E. Sprinkler design drawings submitted by the contractor shall be designed, certified, and shall include the NICET certification block or the Professional Engineer seal of the fire



protection designer. Fire protection designer shall be NICET Level III or Level IV certified or be a licensed Professional Engineer.

## **1.5 REGULATORY REQUIREMENTS**

- A. All material, equipment, and installation shall be approved by the Authorities Having Jurisdiction and the Owner's Insurance Company.
- B. The Authorities Having Jurisdiction and the Owner's Insurance Company shall have precedence over the drawings and specifications in case of discrepancies.
- C. The entire installation shall comply with all applicable codes.

## **1.6 SYSTEM DESIGN**

- A. Provide all required equipment and accessories.

## **1.7 SUBMITTALS**

- A. Submit shop drawings per Section 21 05 00. Indicate pipe materials, joining methods, supports, sprinklers, equipment data and ratings, and hydraulic calculations.
- B. Submit detailed pipe and sprinkler layout and other calculations and forms as described in NFPA 13.
- C. Submit detailed working drawings and obtain review of them in the following order:
  - 1. Engineer/Architect.
  - 2. State Fire Marshal/Authority Having Jurisdiction
  - 3. Owner's Insurance Company
  - 4. Architect/Engineer
  - 5. Local Fire Department
  - 6. Owner's Insurance Company
  - 7. Architect/Engineer

Begin construction after all approvals are received.
- D. Working drawings shall include piping and sprinkler layout, sprinkler types and ratings, sections and elevations at critical points. Show coordination with lighting, ductwork, and diffusers, and indicate basic flow and hydraulic design information, including main location and date that the test was taken.

## **1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Store sprinklers in shipping containers, with labels in place.
- B. Maintain temporary end caps and closures in place until installation.

## **1.9 JOB CONDITIONS**

- A. Fire Protection Contractor shall determine the flow and pressure available at the service connection. The Fire Protection Contractor is responsible to verify this information and make all tests required. Base all pipe sizing and hydraulic calculations on flow test data no older than 18 months.

## PART 2 - PRODUCTS

### 2.1 PIPE AND FITTINGS

- A. Steel Pipe (Inside Building-Above Grade):
  - 1. Pipe: 2" and Under - Schedule 40, black steel, ASTM A53. Threaded and coupled or flanged.
  - 2. Joints: 2" and under - screwed or flanged.
  - 3. Fittings: Screwed - cast iron, 125 lb., black, ANSI/ASME B16.4 or malleable iron, 150 lb., black, ANSI/ASME B16.3. Flanged-cast iron, 125 lb., ANSI/ASME B16.1.
- B. Steel Pipe (Inside Building-Above Grade):
  - 1. Pipe: 2-1/2" and Over - Schedule 10, black steel, grooved, ASTM A135.
  - 2. Joints: Mechanically coupled grooved.
  - 3. Fittings: 500 lb. WOG, black, malleable iron, ASTM A47.
  - 4. Plain end fittings and couplings are not acceptable.

### 2.2 UNIONS AND COUPLINGS

- A. Unions: 175 psi malleable iron for threaded ferrous piping.
- B. Mechanical Grooved Couplings: Malleable iron housing clamps to engage and lock, designed to permit some angular and longitudinal deflection; "C" shaped composition sealing gasket, steel bolts, nuts, and washers. 175 psi, ASTM A47. Plain end fittings and couplings are not acceptable. Rolled groove couplings for Schedule 10 pipe. Cut groove couplings for Schedule 40 pipe. Acceptable Manufacturers: Victaulic, ITT, Grinnell, Central, Star Fittings.

### 2.3 EQUIPMENT

- A. Equipment shall be as scheduled on the drawings.

## PART 3 - EXECUTION

### 3.1 INSTALLATION - PIPING

- A. Coordinate piping and sprinkler locations with all other trades. Ductwork and light fixture locations shall have priority over sprinkler piping and sprinklers.
- B. Ream pipe and tube ends to full inside diameter. Remove burrs. Remove scale and foreign material, inside and outside, before assembly.
- C. Die cut screw joints with full cut standard taper pipe threads.
- D. Coat threads with pipe joint compound or wrap with Teflon tape.
- E. In steel piping, main sized saddle branch connections or direct connection of branches to main is permitted if main is one pipe size larger than the branch for up to 6" mains and if

main is two pipe sizes larger than branch for 8" and larger mains. Do not project branch pipes into main pipes.

- F. Locate piping to minimize obstruction of other work.
- G. Use full and double lengths of pipe wherever possible.
- H. Do not install piping or other equipment above electrical switchboards or panelboards. This includes a dedicated space extending 25 feet from the floor to the structural ceiling with width and depth equal to the equipment. Fire protection equipment dedicated to the electrical equipment room or space may be installed above equipment if other alternatives are not available.
- I. Provide hangers and supports as required by NFPA 13 and UL, with the following exceptions:
  - 1. Do not use powder driven devices, explosive devices, wooden plugs, or plastic inserts.
  - 2. Do not install fasteners to carry the load in tension, unless absolutely necessary.
- J. Slope all piping for complete drainage. Install auxiliary drains for all trapped piping per NFPA 13.
- K. Reducers are generally not shown. Where pipe sizes change at tee, the tee shall be the size of the largest pipe shown connecting to it.

### **3.2 INSTALLATION - EQUIPMENT**

- A. Coordinate piping and sprinkler locations with all other trades. Ductwork and light fixture locations shall have priority over system equipment and sprinklers.
- B. Locate sprinklers to clear lights and duct. Do not run sprinkler pipes through ducts. Ductwork has priority over sprinkler pipes. Offset pipes as needed.

**END OF SECTION**

**SECTION 23 05 00****BASIC HVAC REQUIREMENTS****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Requirements applicable to all Division 23 Sections. Also refer to Division 1 - General Requirements.
- B. All materials and installation methods shall conform to the applicable standards, guidelines and codes referenced in the specification section.

**1.2 WORK SEQUENCE**

- A. All work that will produce excessive noise or interference with normal building operations, as determined by the Owner, shall be scheduled with the Owner. It may be necessary to schedule such work during unoccupied hours. The Owner reserves the right to determine when restricted construction hours will be required.

**1.3 QUALITY ASSURANCE**

- A. Contractor's Responsibility Prior to Submitting Pricing Data:
  - 1. The Contractor is responsible for constructing complete and operating systems. The Contractor acknowledges and understands that the Contract Documents are a two-dimensional representation of a three-dimensional object, subject to human interpretation. This representation may include imperfect data, interpreted codes, utility guidelines, three-dimensional conflicts, and required field coordination items. Such deficiencies can be corrected when identified prior to ordering material and starting installation. The Contractor agrees to carefully study and compare the individual Contract Documents and report at once in writing to the Design Team any deficiencies the Contractor may discover. The Contractor further agrees to require each subcontractor to likewise study the documents and report at once any deficiencies discovered.
  - 2. The Contractor shall resolve all reported deficiencies with the Architect/Engineer prior to awarding any subcontracts, ordering material, or starting any work with the Contractor's own employees. Any work performed prior to receipt of instructions from the Design Team will be done at the Contractor's risk.
- B. Qualifications:
  - 1. Only products of reputable manufacturers are acceptable.
  - 2. All Contractors and subcontractors shall employ only workers skilled in their trades.
- C. Compliance with Codes, Laws, Ordinances:
  - 1. Conform to all requirements of the City of Joliet Codes, Laws, Ordinances and other regulations having jurisdiction.
  - 2. Conform to all published standards of Joliet Junior College.

3. Conform to all State Codes.
4. If there is a discrepancy between the codes and regulations and these specifications, the Engineer shall determine the method or equipment used.
5. If the Contractor notes, at the time of bidding, any parts of the drawings or specifications that do not comply with the codes or regulations, he shall inform the Architect/Engineer in writing, requesting a clarification. If there is insufficient time for this procedure, he shall submit with his proposal a separate price to make the system comply with the codes and regulations.
6. All changes to the system made after letting of the contract, to comply with codes or requirements of Inspectors, shall be made by the Contractor without cost to the Owner.
7. If there is a discrepancy between manufacturer's recommendations and these specifications, the manufacturer's recommendations shall govern.

D. Permits, Fees, Taxes, Inspections:

1. Procure all applicable permits and licenses.
2. Abide by all laws, regulations, ordinances, and other rules of the State or Political Subdivision where the work is done, or as required by any duly constituted public authority.
3. Pay all charges for permits or licenses.
4. Pay all fees and taxes imposed by the State, Municipal and/or other regulatory bodies.
5. Pay all charges arising out of required inspections by an authorized body.
6. Pay all charges arising out of required contract document reviews associated with the project and as initiated by the Owner or authorized agency/consultant.
7. Where applicable, all fixtures, equipment and materials shall be approved or listed by Underwriter's Laboratories, Inc.

E. Examination of Drawings:

1. The drawings for the mechanical work are completely diagrammatic, intended to convey the scope of the work and to indicate the general arrangements and locations of equipment, outlets, etc., and the approximate sizes of equipment.
2. Contractor shall determine the exact locations of equipment and rough-ins, and the exact routing of pipes and ducts to best fit the layout of the job.
3. Scaling of the drawings is not sufficient or accurate for determining these locations.
4. Where job conditions require reasonable changes in indicated arrangements and locations, such changes shall be made by the Contractor at no additional cost to the Owner.
5. Because of the scale of the drawings, certain basic items, such as fittings, boxes, valves, unions, etc., may not be shown, but where required by other sections of

the specifications or required for proper installation of the work, such items shall be furnished and installed.

6. If an item is either on the drawings or in the specifications, it shall be included in this contract.
7. Determination of quantities of material and equipment required shall be made by the Contractor from the documents. Where discrepancies arise between drawings, schedules and/or specifications, the greater number shall govern.
8. Where used in mechanical documents, the word "furnish" shall mean supply for use, the word "install" shall mean connect complete and ready for operation, and the word "provide" shall mean to supply for use and connect complete and ready for operation.
  - a. Any item listed as furnished shall also be installed, unless otherwise noted.
  - b. Any item listed as installed shall also be furnished, unless otherwise noted.

F. Field Measurements:

1. Verify all pertinent dimensions at the job site before ordering any materials or fabricating any supports, pipes or ducts.

G. Electronic Media/Files:

1. Construction drawings for this project have been prepared utilizing Revit 2025.
2. Contractors and Subcontractors may request electronic media files of the contract drawings and/or copies of the specifications. Specifications will be provided in PDF format.
3. Upon request for electronic media, the Contractor shall complete and return a signed "Electronic File Transmittal" form provided by IMEG.
4. If the information requested includes floor plans prepared by others, the Contractor will be responsible for obtaining approval from the appropriate Design Professional for use of that part of the document.
5. The electronic contract documents can be used for preparation of shop drawings and as-built drawings only. The information may not be used in whole or in part for any other project.
6. The drawings prepared by IMEG for bidding purposes may not be used directly for ductwork layout drawings or coordination drawings.
7. The use of these CAD documents by the Contractor does not relieve them from their responsibility for coordination of work with other trades and verification of space available for the installation.
8. The information is provided to expedite the project and assist the Contractor with no guarantee by IMEG as to the accuracy or correctness of the information provided. IMEG accepts no responsibility or liability for the Contractor's use of these documents.

#### 1.4 SUBMITTALS

- A. Submittals shall be required for the following items, and for additional items where required elsewhere in the specifications or on the drawings.

1. Submittals list:

Submittal Item	Referenced Specification Section
a. Testing, Adjusting, and Balancing	23 05 93
b. Energy Recovery Wheel	23 73 23

- B. In addition to the provisions of Division 1, the following provisions are required:

1. Submittals shall include all fabrication, erection, layout, and setting drawings; manufacturers' standard drawings; schedules; descriptive literature, catalogs and brochures; performance and test data; wiring and control diagrams; and all other drawings and descriptive data of materials of construction as may be required to show that the materials, equipment or systems and the location thereof conform to the requirements of the contract documents.
2. The Contractor shall submit seven (7) copies of each shop drawing for review by the Architect/Engineer BEFORE releasing any equipment for manufacture or shipment. Electronic shop drawings are acceptable.
3. Shop drawings which are larger than 11"x 17" or are plan size layout or erection drawings such as ductwork layout drawings shall be submitted on reproducible media. Submit one reproducible and one print of each drawing or plan. All Contractor approval stamps shall be made on the reproducible.
4. The Contractor shall thoroughly review and approve all shop drawings before submitting them to the Architect/Engineer. CONTRACTOR'S APPROVAL STAMP IS REQUIRED ON ALL SUBMITTALS. APPROVAL WILL INDICATE THE CONTRACTOR'S REVIEW of all material and a COMPLETE UNDERSTANDING OF EXACTLY WHAT IS TO BE FURNISHED. Contractor shall clearly mark all deviations from the contract documents on all submittals. IF DEVIATIONS ARE NOT MARKED BY THE CONTRACTOR, THEN THE ITEM SHALL BE REQUIRED TO MEET ALL DRAWING AND SPECIFICATION REQUIREMENTS.
5. **THE CONTRACTOR SHALL CLEARLY MARK EACH ITEM WITH THE SAME NOMENCLATURE APPLIED ON THE DRAWINGS OR IN THE SPECIFICATIONS.**
6. **THE CONTRACTOR SHALL CLEARLY INDICATE THE SIZE, FINISH, MATERIAL, ETC.**
7. Assemble and submit by specification section numbers for all submittals. All sets shall be identical and contain an index of the items enclosed with a general topic description on the cover.
8. Each set shall be bound in a manufacturer's folder or inside of a manila file folder.

9. **WHERE MORE THAN ONE MODEL IS SHOWN ON A MANUFACTURER'S SHEET, THE CONTRACTOR SHALL CLEARLY INDICATE EXACTLY WHICH ITEM AND WHICH DATA IS RELEVANT TO THE WORK.**
10. **FAILURE TO COMPLY WITH THE ABOVE SHALL BE REASON TO RESUBMIT ALL SHOP DRAWING SUBMITTALS.**
11. The Engineer's responsibility shall be to review one set of shop drawing submittals for each product. If the first submittal is incomplete or does not comply with the drawings and/or specifications, the Contractor shall be responsible to bear the cost for the Engineer to recheck and handle the additional shop drawing submittals.

#### **1.5 EQUIPMENT SUPPLIERS' INSPECTION**

- A. The following equipment shall not be placed in operation until a competent installation and service representative of the manufacturer has inspected the installation and certified that the equipment is properly installed, adjusted and lubricated; that preliminary operating instructions have been given; and that the equipment is ready for operation:
  1. Energy Recovery Wheel
- B. Contractor shall arrange for and obtain supplier's on-site inspection(s) at proper time(s) to assure each phase of equipment installation and/or connection is in accordance with the manufacturer's instructions.
- C. Submit copies of start-up reports to the Architect/Engineer and include copies of Owner's Operation and Maintenance Manuals.

#### **1.6 PRODUCT DELIVERY, STORAGE, HANDLING & MAINTENANCE**

- A. Exercise care in transporting and handling to avoid damage to materials. Store materials on the site to prevent damage. Keep materials clean, dry and free from harmful conditions. Immediately remove any materials that become wet or that are suspected of becoming contaminated with mold or other organisms.
- B. Coordinate the installation of heavy and large equipment with the General Contractor and/or Owner. If the Mechanical Contractor does not have prior documented experience in rigging and lifting similar equipment, he/she shall contract with a qualified lifting and rigging service that has similar documented experience. Follow all equipment lifting and support guidelines for handling and moving.
- C. Contractor is responsible for moving equipment into the building and/or site. Contractor shall review site prior to bid for path locations and any required building modifications to allow movement of equipment. Contractor shall coordinate his/her work with other trades.

#### **1.7 WARRANTY**

- A. Provide two-year warranty, unless otherwise noted, to the Owner for all fixtures, equipment, materials, and workmanship.
- B. The warranty period for all work in this Division of the specifications shall commence on the date of final acceptance, unless a whole or partial system or any separate piece of equipment or component is put into use for the benefit of any party other than the installing contractor with prior written authorization. In this instance, the warranty period



shall commence on the date when such whole system, partial system or separate piece of equipment or component is placed in operation and accepted in writing by the Owner.

- C. Warranty requirements shall extend to correction, without cost to the Owner, of all Work found to be defective or nonconforming to the contract documents. The Contractor shall bear the cost of correcting all damage resulting from defects or nonconformance with contract documents.

## **1.8 INSURANCE**

- A. Contractor shall maintain insurance coverage as set forth in Division 0 of these specifications.

## **1.9 MATERIAL SUBSTITUTION**

- A. Where several manufacturers' names are given, the manufacturer for which a catalog number is given is the basis for job design and establishes the quality required.
- B. Equivalent equipment manufactured by the other named manufacturers may be used. Contractor shall ensure that all items submitted by these other manufacturers meet all requirements of the drawings and specifications, and fits in the allocated space.
- C. Any material, article or equipment of other unnamed manufacturers which will adequately perform the services and duties imposed by the design and is of a quality equal to or better than the material, article or equipment identified by the drawings and specifications may be used if approval is secured in writing from the Architect/Engineer not later than ten days prior to the bid opening.
- D. This Contractor assumes all costs incurred as a result of using the offered material, article or equipment, on his part or on the part of other Contractors whose work is affected.
- E. This Contractor may list voluntary add or deduct prices for alternate materials on the bid form. These items will not be used in determining the low bidder.
- F. All material substitutions requested later than ten (10) days prior to bid opening must be listed as voluntary changes on the bid form.

## **PART 2 - PRODUCTS**

NOT APPLICABLE

## **PART 3 - EXECUTION**

### **3.1 JOBSITE SAFETY**

- A. Neither the professional activities of the Engineer, nor the presence of the Engineer or his or her employee and subconsultants at a construction site, shall relieve the Contractor and other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. The Engineer and his or her personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Contractor is solely

responsible for jobsite safety. The Engineer and the Engineer's consultants shall be indemnified and shall be made additional insureds under the Contractor's general liability insurance policy.

### **3.2 ENGINEER OBSERVATION OF WORK**

- A. The Engineer will have the opportunity to review the installation and provide a written report noting deficiencies requiring correction. The Contractor's schedule shall account for these reviews and show them as line items in the approved schedule.
- B. Final Observation
  - 1. All work must be complete prior to the Engineer's review. This includes, but is not limited to:
    - a. Pipe identification is installed.
    - b. Mains are installed.
  - 2. In order to prevent the Final Observation from occurring too early, the Contractor shall review the status of the work and certify, in writing, that the work is ready for the Above-Ceiling Final Observation.

### **3.3 PROJECT CLOSEOUT**

- A. The following paragraphs supplement the requirements of Division 1.
- B. Final Jobsite Observation:
  - 1. In order to prevent the Final Jobsite Observation from occurring too early, the Contractor is required to review the completion status of the project and certify that the job is ready for the final jobsite observation.
  - 2. Attached to the end of this section is a typical list of items that represent the degree of job completeness expected prior to requesting a review.
  - 3. Upon Contractor certification that the project is complete and ready for a final punch, the Contractor shall sign the attached certification and return it to the Architect/Engineer so that the final observation can be scheduled.
  - 4. It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.
- C. Before final payment is authorized, This Contractor must submit the following:
  - 1. Record documents including marked-up or reproducible drawings and specifications.
  - 2. A report documenting the instructions given to the Owner's representatives complete with the number of hours spent in the instruction. The report shall bear the signature of an authorized agent of This Contractor and shall be signed by the Owner's representatives.
  - 3. Start-up reports on all equipment requiring a factory installation inspection or start-up.

4. Provide spare parts, maintenance, and extra materials in quantities specified in individual specification sections. Deliver to project site and place in location as directed; receipt by Architect/Engineer required prior to final payment approval.

### **3.4 RECORD DOCUMENTS**

- A. The following paragraph supplements Division 1 requirements:

Contractor shall maintain at the job site a separate and complete set of mechanical drawings and specifications on which he shall clearly and permanently mark in complete detail all changes made to the mechanical systems.

- B. Mark drawings to indicate revisions to piping and ductwork, size and location, both exterior and interior; including locations of coils, dampers, other control devices, filters, and other units requiring periodic maintenance or repair; actual equipment locations, dimensioned from column lines; actual inverts and locations of underground piping; concealed equipment, dimensioned from column lines; mains and branches of piping systems, with valves and control devices located and numbered, concealed unions located, and with items requiring maintenance located (e.g., traps, strainers, expansion compensators, tanks, etc.); Change Orders; concealed control system devices.
- C. Refer to Specification Section 23 09 00 for additional requirements for Temperature Control documents.
- D. Before completion of the project, a set of reproducible mechanical drawings will be given to the Contractor for transfer of all as-built conditions from the paper set maintained at the job site. All marks on reproducibles shall be clear and permanent.
- E. Mark specifications to show approved substitutions; Change Orders, and actual equipment and materials used.
- F. Record changes daily and keep the marked drawings available for the Architect/Engineer's examination at any normal work time.
- G. Upon completing the job, and before final payment is made, give the marked-up drawings to the Architect/Engineer.

### **3.5 ADJUST AND CLEAN**

- A. Thoroughly clean all equipment and systems prior to the Owner's final acceptance of the project. Clean all foreign paint, grease, oil, dirt, labels, stickers, and other foreign material from all equipment.
- B. Clean all drain pans and areas where moisture is present. Immediately report any mold, biological growth, or water damage.
- C. Remove all rubbish, debris, etc., accumulated during construction from the premises.

END OF SECTION

### READINESS CERTIFICATION PRIOR TO FINAL JOBSITE OBSERVATION

In order to prevent the final job observation from occurring too early, we require that the Contractor review the completion status of the project and, by copy of this document, certify that the job is indeed ready for the final job observation. The following is a typical list of items that represent the degree of job completeness expected prior to your requesting a final job observation.

1. All air handling units operating and balanced.
2. Pipe insulation complete, pipes labeled and valves tagged.

Accepted by:

Prime Contractor \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_

Upon Contractor certification that the project is complete and ready for a final job observation, we require the Contractor to sign this agreement and return it to the Engineer so that the final observation can be scheduled.

It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers for additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.

\* \* \* \* \*

## **SECTION 23 05 05**

### **HVAC DEMOLITION FOR REMODELING**

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Mechanical demolition.
- B. Cutting and Patching.

#### **PART 2 - PRODUCTS**

##### **2.1 MATERIALS AND EQUIPMENT**

- A. Materials and equipment shall be as specified in individual Sections.

#### **PART 3 - EXECUTION**

##### **3.1 EXAMINATION**

- A. The drawings are intended to indicate the general scope of work and do not show every pipe, duct, or piece of equipment that must be removed. The contractor shall visit the site and verify conditions prior to submitting a bid.
- B. Where walls, ceilings, etc., are shown as being removed on general drawings, the Contractor shall remove all mechanical equipment, devices, fixtures, piping, ducts, systems, etc., from the removed area.
- C. Where ceilings, walls, partitions, etc., are temporarily removed and replaced by others, This Contractor shall remove, store, and replace equipment, devices, fixtures, pipes, ducts, systems, etc.
- D. Verify that abandoned utilities serve only abandoned equipment or facilities. Extend services to facilities or equipment that shall remain in operation following demolition.
- E. Coordinate work with all other Contractors and the Owner. Schedule removal of equipment to avoid conflicts.
- F. This Contractor shall verify all existing equipment sizes and capacities where equipment is scheduled to be replaced or modified, prior to ordering new equipment.
- G. Bid submittal shall mean the Contractor has visited the project site and verified existing conditions and scope of work.

##### **3.2 PREPARATION**

- A. Provide temporary connections to maintain existing systems in service during construction. When work must be performed on operating equipment, use personnel experienced in such operations.

**3.3 DEMOLITION AND EXTENSION OF EXISTING MECHANICAL WORK**

- A. Demolish and extend existing mechanical work under provisions of Division 2 and this Section.
- B. Remove, relocate, and extend existing installations to accommodate new construction.
- C. Remove abandoned ducts and piping to source of supply and/or main lines.
- D. Disconnect and remove mechanical devices and equipment serving equipment that has been removed.
- E. Repair adjacent construction and finishes damaged during demolition and extension work.
- F. Maintain access to existing mechanical installations which remain. Modify installation or provide access panels as appropriate.
- G. Extend existing installations using materials and methods compatible with existing installations, or as specified.

**3.4 CUTTING AND PATCHING**

- A. This Contractor is responsible for all penetrations of existing construction required to complete the work of this project. Refer to Section 23 05 29 for additional requirements.
- B. Repair existing construction as required after penetration is complete to restore to original condition. Use similar materials and match adjacent construction unless otherwise noted or agreed to by the Architect/Engineer prior to start of work.
- C. This Contractor is responsible for all costs incurred in repair, relocations, or replacement of any cables, conduits, or other services if damaged without proper investigation.

**3.5 CLEANING AND REPAIR**

- A. Clean and repair existing materials and equipment which remain or are to be reused.
- B. Clean all systems adjacent to project which are affected by the dust and debris caused by this construction.
- C. Mechanical items removed and not relocated remain the property of the owner. The contractor shall dispose of material the owner does not want to reuse or retain for maintenance purposes.

**END OF SECTION**

**SECTION 23 05 93****TESTING, ADJUSTING, AND BALANCING****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Testing, adjusting, and balancing of air systems.

**1.2 REFERENCES**

- A. AABC - National Standards for Total System Balance, 2002.
- B. ASHRAE - 2003 HVAC Applications Handbook; Chapter 37, Testing, Adjusting and Balancing.
- C. ASHRAE/ANSI - Standard 111-1988; Practices for Measurement, Testing, Adjusting and Balancing of Building HVAC&R Systems.
- D. NEBB - Procedural Standards for Testing, Adjusting and Balancing of Environmental Systems, Sixth Edition, 1998.
- E. SMACNA - HVAC Systems; Testing, Adjusting and Balancing, Third Edition, 2002.
- F. TABB – International Standards for Environmental Systems Balance.

**1.3 SUBMITTALS**

- A. Submit copies of report forms, balancing procedures, and the name and qualifications of testing and balancing agency for approval within 30 days after award of Contract.
- B. Submit four (4) certified copies of test reports to the Engineer for approval.

**1.4 REPORT FORMS**

- A. Submit reports on AABC, SMACNA or NEBB forms. Use custom forms approved by the Engineer when needed to supply specified information.
- B. Include in the final report a schematic drawing showing each system component, including balancing devices, for each system. Each drawing shall be included with the test reports required for that system. The schematic drawings shall identify all testing points and cross-reference these points to the report forms and procedures.
- C. Refer to PART 4 for required reports.

**1.5 QUALITY ASSURANCE**

- A. Agency shall be a company specializing in the adjusting and balancing of systems specified in this section with minimum three years experience. Perform work under supervision of AABC Certified Test and Balance Engineer, NEBB Certified Testing, Balancing and Adjusting Supervisor, SMARTA Certified Air and Hydronic Balancer, or TABB Certified Supervisor.
- B. Work shall be performed in accordance with the requirements of the references listed at the start of this section.

**1.6 WARRANTY/GUARANTEE**

- A. Warranty/Guarantee must meet one of the following programs: TABB International Quality Assurance Program, AABC National Project Performance Guarantee, NEBB's Conformance Certification.

**1.7 SCHEDULING**

- A. Coordinate schedule with other trades. Provide a minimum of seven days notice to all trades and the Engineer prior to performing each test.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION****3.1 GENERAL REQUIREMENTS**

- A. All procedures must conform to a published standard listed in Paragraph 1.2. All equipment shall be adjusted in accordance with the manufacturer's recommendations. Any system not listed in this specification but installed under the contract documents shall be balanced using a procedure from a published standard listed in Paragraph 1.2.
- B. Recorded data shall represent actual measured or observed conditions.
- C. Cut insulation and ducts for installation of test probes to the minimum extent necessary to allow adequate performance of procedures. After testing is complete, close probe holes and patch insulation with new materials as specified. Restore vapor barrier and finish as specified.
- D. Installations with systems consisting of multiple components shall be balanced with all system components operating.

**3.2 EXAMINATION**

- A. Before beginning work, verify that systems are complete and operable. Ensure the following:
  - 1. Equipment is safe to operate and in normal condition.
  - 2. All filters are clean and in place. If required, install temporary media.
  - 3. Duct systems are clean and free of debris.
  - 4. Access doors are closed and end caps are in place.
  - 5. Duct system leakage has been minimized.
- B. Report any defects or deficiencies to Architect/Engineer.
- C. Promptly report items that are abnormal or prevent proper balancing.
- D. If, for design reasons, system cannot be properly tested, report as soon as observed.
- E. Beginning of work means acceptance of existing conditions.



### 3.3 PREPARATION

- A. Provide instruments required for testing operations. Make instruments available to the Engineer for spot checks during testing.
- B. Instruments shall be calibrated within six months of testing performed for project, or more recently if recommended by the instrument manufacturer.

### 3.4 SUBMISSION OF REPORTS

- A. Fill in test results on appropriate forms.

## PART 4 - SYSTEMS TO BE TESTED

### 4.1 GENERAL REQUIREMENTS

- A. Title Page:
  - 1. Project name.
  - 2. Project location.
  - 3. Project Architect.
  - 4. Project Engineer (KJWW Engineering Consultants).
  - 5. Project General Contractor.
  - 6. TAB Company name, address, phone number.
  - 7. TAB Supervisor's name and certification number.
  - 8. TAB Supervisor's signature and date.
  - 9. Report date.
- B. Report Index
- C. General Information:
  - 1. Test conditions.
  - 2. Nomenclature used throughout report.
  - 3. Notable system characteristics/discrepancies from design.
  - 4. Test standards followed.
  - 5. Any deficiencies noted.
  - 6. Quality assurance statement.
- D. Instrument List:
  - 1. Instrument.
  - 2. Manufacturer, model, and serial number.
  - 3. Range.
  - 4. Calibration date.

### 4.2 AIR SYSTEMS

- A. Duct Traverse (At location shown on drawings):
  - 1. System zone/branch/location.
  - 2. Duct size.
  - 3. Free area.
  - 4. Velocity: specified and actual.
  - 5. Flow rate (cfm): specified and actual.
  - 6. Duct static pressure.

7. Air temperature.
8. Air correction factor.

**END OF SECTION**

**SECTION 23 07 13**  
**DUCTWORK INSULATION**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Ductwork Insulation.

**1.2 REFERENCES**

- A. ANSI/ASTM C553 - Mineral Fiber Blanket and Felt Insulation.
- B. ANSI/ASTM C612 - Mineral Fiber Block and Board Thermal Insulation.
- C. ASTM E84 - Surface Burning Characteristics of Building Materials.
- D. National Commercial & Industrial Insulation Standards - 1999 Edition - as published by Midwest Insulation Contractors Association and endorsed by National Insulation Contractors Association.
- E. NFPA 255 - Surface Burning Characteristics of Building Materials.
- F. UL 723 - Surface Burning Characteristics of Building Materials.

**1.3 QUALITY ASSURANCE**

- A. Applicator: Company specializing in ductwork insulation application with five years minimum experience. When requested, installer shall submit manufacturer's certificate indicating qualifications.
- B. Materials: UL listed in Category HNKT; flame spread/smoke developed rating of 25/50 in accordance with ASTM E84, NFPA 255, or UL 723.
- C. Adhesives: UL listed, meeting NFPA 90A/90B requirements.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Type B: Semi-rigid Fiberglass Board Wrap - Outside Application; ANSI/ASTM C612, Class 1; 0.25 maximum 'K' value at 75°F; foil scrim kraft facing, 3 lb./cu. ft. density.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. Install materials in accordance with manufacturer's instructions, codes, and industry standards.
- B. Install materials after ductwork has been tested.
- C. Clean surfaces for adhesives.

- D. Provide insulation with vapor barrier when air conveyed may be below ambient temperature.
- E. Semi Rigid Fiberglass Board Wrap - Type B (Indoor Use):
  - 1. Impale on pins welded to the duct and secured with speed clips. Clip pins off close to speed clips.
  - 2. Space pins as needed to hold insulation firmly against duct, but not less than one pin per square foot. Pins must be long enough to avoid compressing the insulation.
  - 3. Seal all joints and speed clips with glass fabric set in adhesive or a 3" wide strip of Royal Tapes #RT 350 (216-439-7229), Venture Tape 1525CW, or Compac Type FSK facing tape.
  - 4. For small areas, secure insulation with adhesive over the entire surface of the duct. Use adhesive in addition to pins as needed to prevent sagging on horizontal surfaces.
- F. Continue insulation with vapor barrier through penetrations unless code prohibits.
- G. Provide 2" wide, 24" high, 26 gauge, galvanized sheet metal corner protection angles for all externally insulated ductwork extending to a floor or curb.

### **3.2 SCHEDULE**

- A. Refer to Section 23 31 00 for scheduling of insulation.

### **END OF SECTION**

**SECTION 23 21 00****HYDRONIC PIPING****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Pipe and Pipe Fittings.

**1.2 DELIVERY, STORAGE, AND HANDLING**

- A. Store and protect piping to prevent entrance of foreign matter into pipe and to prevent exterior corrosion.

**PART 2 - PRODUCTS****2.1 DRAINS**

- A. Copper Tubing: DWV drawn temper seamless copper drainage tube, ASTM B306.
  - 1. Fittings: ASME B16.23 cast brass, or ASME B16.29 solder wrought copper.
  - 2. Joints: Solder with Type 95-5 solder. 50-50 solder is not acceptable.
- B. Piping Under 1-1/4" Size:
  - 1. In sizes where drainage type fittings are not available, tees with threaded caps to permit rodding are acceptable.

**2.2 DRAIN VALVES**

- A. Drain valve shall mean a shutoff valve as specified for the intended service with added 3/4" male hose thread outlet, cap, and retaining chain.

**PART 3 - EXECUTION****3.1 INSTALLATION**

- A. Provide clearance for installation of piping per design documents.

**3.2 JOINING OF PIPE**

- A. Solder Joints:
  - 1. Make up joints with 95% tin and 5% antimony (95-5) solder conforming to ASTM B32 Grade 95TA. Cut copper tubing ends perfectly square and remove all burrs inside and outside. Thoroughly clean sockets of fittings and ends of tubing to remove all oxide, dirt and grease just prior to soldering. Apply flux evenly, but sparingly, to all surfaces to be joined. Heat joints uniformly to proper soldering temperature so solder flows to all mated surfaces. Wipe excess solder, leaving a uniform fillet around cup of fitting.
  - 2. Flux shall be non-acid type conforming to ASTM B813.

3. Solder end valves may be installed directly in the piping system if the entire valve is suitable for use with 470°F melting point solder. Remove composition discs and all seals during soldering if not suitable for 470°F.

**END OF SECTION**

**SECTION 23 31 00****DUCTWORK****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Galvanized Ductwork
- B. Ductwork Reinforcement
- C. Joint Sealing
- D. Rectangular Ductwork - Single Wall
- E. Leakage Testing
- F. Ductwork Penetrations

**1.2 REFERENCES: Conform to all applicable requirements of the following publications:**

- A. ADC Flexible Duct Performance and Installation Standards, 3<sup>rd</sup> Edition 1996.
- B. ANSI/AWS A5.11M (1997) - Specification for Nickel and Nickel Alloy Welding Electrodes for Shielded Metal Arc Welding.
- C. ASHRAE - Handbook 2004 Systems and Equipment; Chapter 16 - Duct Construction.
- D. ASHRAE - Handbook 2005 Fundamentals; Chapter 35 - Duct Design.
- E. ASHRAE – Standard 90.1-2004 “Energy Standard for Buildings Except Low-Rise Residential Buildings”
- F. ASTM A167- Stainless & Heat-Resisting Chromium-Nickel Steel Plate, Sheet, & Strip.
- G. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- H. ASTM A90 - Standard Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings.
- I. ASTM A924 - Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- J. ASTM B209 - Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- K. ASTM E90-02 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- L. ASTM E413-87 - Classification for Rating Sound Insulation.
- M. AWS A5.14M (1997) - Specification for Nickel and Nickel Alloy Bare Welding Electrodes and Rods.
- N. AWS D9.1M/D9.1 - Sheet Metal Welding Code.
- O. NADCA ACR 2002 - Assessment, Cleaning, and Restoration of HVAC Systems.
- P. NADCA Standard 05 1997 - Requirements for the Installation of Service Openings in HVAC Systems.
- Q. NFPA 90A - Installation of Air-Conditioning and Ventilating Systems.

- R. NFPA 90B - Installation of Warm Air Heating and Air- Conditioning Systems.
- S. SMACNA – Air Duct Leakage Test Manual – 1985 Edition.
- T. SMACNA - HVAC Duct Construction Standards - 2005 Edition.

### 1.3 DEFINITIONS

- A. Duct Sizes shown on drawings are inside clear dimensions. Maintain clear dimensions inside any lining.
- B. Transitions are generally not shown in single-line ductwork. Where sizes change at a divided flow fitting, the larger size shall continue through the fitting.

## PART 2 - PRODUCTS

### 2.1 GALVANIZED DUCTWORK

- A. General Requirements:
  - 1. Duct and reinforcement materials shall conform to ASTM A653 and A924.
  - 2. Interior Ductwork and reinforcements: G60 galvanized (0.60 ounces per square foot total zinc coating for two sides per ASTM A90) unless noted otherwise.
  - 3. Ductwork reinforcement shall be of galvanized steel.
  - 4. Ductwork supports shall be of galvanized or painted steel. Slip cable hangers are acceptable. Acceptable manufacturers are Gripple, Ductmate, Duro Dyne, or engineer approved.
  - 5. All fasteners shall be galvanized or cadmium plated.

### 2.2 DUCTWORK REINFORCEMENT

- A. General Requirements:
  - 1. All reinforcement shall be external to the duct except that tie rods may be used with the following limitations.
    - a. Ducts must be over 18" wide.
    - b. Duct dimensions must be increased 2" in one dimension (h or w) for each row of tie rods installed.
    - c. Tie rods must not exceed 1/2" diameter.
    - d. Manufacturer of tie rod system must certify pressure classifications of various arrangements, and this must be in the shop drawings.

### 2.3 JOINT SEALING

- A. General Requirements:
  - 1. One part joint sealers shall be water based mastic systems that meet the following requirements: maximum 48 hour cure time, service temperature of minus 20 to plus 175 degrees F, resistant to mold, mildew and water, flame spread rating below 25 and smoke developed rating below 50 when tested in accordance with ASTM E84, suitable for all SMACNA seal classes and pressure



classes.

2. Two part joint sealers shall consist of a minimum 3" wide mineral-gypsum compound impregnated fiber tape and a liquid sealant. Sealant system shall meet the following requirements: maximum 48 hour cure time, service temperature of 0 to 200 degrees F, resistant to mold, mildew, and water, flame spread rating below 25 and smoke developed rating below 50 when tested in accordance with ASTM E84, suitable for all SMACNA seal classes and pressure classes.
  3. Joint sealers shall meet volatile organic compound (VOC) requirements of U.S. Green Building Council LEED NC 2.2, credit EQ 4.1.
- B. Seal transverse joints using one or two-part sealant systems. Seal flanged joints with neoprene rubber gaskets.
- C. Seal all button punch snap lock, single corner seam, and standing seam longitudinal joints.
- D. Ducts shall be clean, dry and free of oil before installing sealer. Seal ducts per manufacturer's instructions. Allow sealers to cure before starting fans.

## 2.4 RECTANGULAR DUCT - SINGLE WALL

- A. General Requirements:
1. All ductwork gauges and reinforcements shall be as listed in SMACNA Duct Construction Standards Chapter 2. Where necessary to fit in confined spaces, furnish heaviest duct gauge and least space consuming reinforcement.
  2. Offsets and transitions shall not exceed the angles in Figure 4-7.
- B. Exceptions and modifications to the 2005 HVAC Duct Construction Standards are:
1. All ducts shall be cross-broken or beaded.
  2. Turning vanes shall be used in all 90° mitered elbows, unless clearly noted otherwise on the drawings. Vanes shall be as follows:
    - a. Type 1:
      - 1) **Description:** Single wall type with 22-gauge (0.029") or heavier vanes, 3-1/4" blade spacing, and 4 to 4-1/2" radius. Vanes hemmed if recommended by runner manufacturer. Runners shall have extra long locking tabs. C-value independently tested at below 0.26. EZ Rail II by Sheet Metal Connectors or equal.
      - 2) **Usage:** Limited to 3,000 fpm and vane lengths 36" and under.
    - b. Type 2:
      - 1) **Description:** Double wall type with 3-1/4" blade spacing, 4-1/2" radius, 24-gauge minimum, and SMACNA Type 1 runners. C-value below 0.27.
      - 2) **Usage:** No limits other than imposed by the manufacturer. Provide intermediate support for vanes over 48" long.
    - c. Turning vanes shall operate quietly. Repair or replace vanes that rattle or flutter.

- d. Runners must be installed at a 45° angle. Elbows with different size inlet and outlet must be radius type.
  - e. Omitting every other vane is prohibited.
3. Where smooth radius rectangular elbows are shown, they shall be constructed per SMACNA Figure 4-2. Type RE1 shall be constructed with a centerline duct radius R/W of 1.0. Where shown on drawings, Type RE3 elbows with 3 vanes shall be used with centerline duct radius R/W of 0.6 (SMACNA r/W=0.1). RE1 or RE3 elbows may be used where mitered elbows are shown if space permits. **Mitered elbows (with or without turning vanes) may not be substituted for radius elbows.** Do not make branch takeoffs within 4 duct diameters on the side of the duct downstream from the inside radius of radius elbows.
  4. Rectangular branch and tee connections in ducts over 1" pressure class shall be 45° entry type per Figs. 4-5 and 4-6. Rectangular straight taps are not acceptable above 1" pressure class.
  5. Cushion heads are acceptable only downstream of TAB devices in ducts up to ± 2" pressure class, and must be less than 6" in length.
  6. Slide-on flanged transverse joint systems are acceptable provided they are a manufactured product that has been tested for conformance with Chapter 2 of the SMACNA HVAC Duct Construction Standards for sheet and joint deflection at the specified pressure class.
    - a. Apply sealant to all inside corners. Holes at corners are not acceptable.
    - b. Acceptable Manufacturers: Ductmate Industries - 25/35/45, Nexus, Mez, or WDCI. Other manufacturers must submit test data and fabrication standards and receive Engineer's approval before any fabrication begins.
  7. Formed-on flanged transverse joint systems are acceptable provided they are a manufactured product that has been tested for conformance with Chapter 2 of the SMACNA HVAC Duct Construction Standards for sheet and joint deflection at the specified pressure class.
    - a. Apply sealant to all inside corners. Holes at corners are not acceptable.
    - b. Flanges shall be 24 gauge minimum (not 26 gauge).
    - c. Acceptable Manufacturers: Lockformer TDC, TDF, United McGill, or Sheet Metal Connectors. Other manufacturers must submit test data and fabrication standards and receive Engineer's approval before any fabrication begins.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Locate ducts with space around equipment for normal operation and maintenance.
- B. Do not install ducts or other equipment above electrical switchboards or panelboards. This includes a dedicated space extending 25 feet from the floor to the structural ceiling with width and depth equal to the electrical equipment. Unless intended to serve these rooms, do not install any ductwork or equipment in electrical rooms, transformer rooms, electrical closets, telephone rooms or elevator machine rooms

- C. During construction provide temporary closures of metal or taped polyethylene on open ducts to prevent dust from entering ductwork.
- D. Repair all duct insulation and liner tears.
- E. Support all duct systems in accordance with the SMACNA HVAC Duct Construction Standards: Metal and Flexible.
- F. Adhesives, sealants, tapes, vapor retarders, films, and other supplementary materials added to ducts, plenums, housing panels, silencers, etc. shall have flame spread/smoke developed ratings of under 25/50 per ASTM E84, NFPA 255, or UL 723.

### 3.2 DUCTWORK APPLICATION SCHEDULE

USAGE	MATERIAL	PRESSURE CLASS	SEAL CLASS	INSULATION (Refer to Specification Section 23 07 13 for insulation types)
Outside Air Intake from Louver to Heating Coil	Galvanized Sheet Metal	-6"	B	2" thick Type B

### 3.3 TESTING

- A. Duct - 2" WG or Less (positive or negative):
  - 1. Systems shall not leak more than permitted by Table 4-1 of SMACNA HVAC Air Duct Leakage Test Manual for seal class B.
  - 2. Leak testing of these systems is not normally required, however, leak tests will be required if in the opinion of the Architect/Engineer the leakage appears excessive. Contractor shall be responsible for testing costs.
  - 3. Leak test shall be at the Contractor's expense and require capping and sealing all openings.
  - 4. Seal ducts to bring the air leakage into compliance.
  - 5. Contractor shall notify the Architect/Engineer five business days prior to pressurizing ductwork for testing.

**SECTION 23 33 00**  
**DUCTWORK ACCESSORIES**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Duct Access Doors.
- B. Duct Test Holes.

**1.2 REFERENCES**

- A. ASTM E-477-99 - Standard Test Method for Measuring Acoustical and Airflow Performance of Duct Liner Materials and Prefabricated Silencers.
- B. NFPA 90A - Installation of Air-Conditioning and Ventilating Systems.
- C. SMACNA - HVAC Duct Construction Standards – Third Edition - 2005.

**1.3 SUBMITTALS**

- A. Submit shop drawings under provisions of Section 23 05 00.
- B. Submit manufacturer's installation instructions.

**PART 2 - PRODUCTS**

**2.1 DUCT ACCESS DOORS**

- A. Fabricate per Fig. 7-2 and 7-3 of the SMACNA HVAC Duct Construction Standards and as indicated.
- B. Provide duct access door as called out in design documents.
- C. Construction shall be suitable for the pressure class of the duct. Fabricate rigid, airtight, and close-fitting doors of materials identical to adjacent ductwork with sealing gaskets butt or piano hinges, and quick fastening locking devices. For insulated ductwork, install minimum one inch thick insulation with sheet metal cover.
- D. Access doors with sheet metal screw fasteners are not acceptable.
- E. Minimum size for access doors shall be 24"x24".

**2.2 DUCT TEST HOLES**

- A. Cut or drill temporary test holes in ducts as required. Cap with neat patches, neoprene plugs, threaded plugs, or threaded or twist-on metal caps.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. Install accessories in accordance with manufacturer's instructions.

- B. Provide access doors as shown on design documents.
- C. Provide duct test holes as required for testing and balancing purposes.

**END OF SECTION**

**SECTION 23 73 23**  
**ENERGY RECOVERY WHEEL**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Energy Recovery Wheel

**1.2 REGULATORY REQUIREMENTS**

- A. Unit shall bear ETL Label.
- B. Unit shall contain only UL listed components.
- C. Manufacturer shall be ISO-9000 certified, or follow quality procedures similar to ISO-9000.

**1.3 SUBSTITUTIONS:**

- A. All base bid pricing shall be based on the drawings, schedules and this specification.
- B. A manufacturer's standard construction methods or previously arranged buying agreements shall not be acceptable reasons for deviating from these drawings and specifications.
- C. If a manufacturer requests to deviate from the requirements described herein, the Manufacturer and/or Contractor may list voluntary add or deduct prices for alternate materials, equipment manufacturers or construction methods on the bid form. These voluntary prices will not be used in determining the low bidder.
- D. All voluntary adds or deducts shall be discussed and agreed to by the Owner and Engineer prior to the award of the air handling unit bid and before the submittal process begins.

**1.4 SUBMITTALS**

- A. Submit shop drawings per Specification Section 23 05 00.
- B. Provide dimensioned computer generated drawings showing energy recovery wheel. Drawings shall be a minimum of 1/4"=1'-0" scale
- C. Any exceptions to the specifications must be clearly noted to the Engineer prior to acceptance. Contractor is responsible for all expenses due to exceptions.
- D. Submit operation and maintenance data. Include instructions for lubrication, filter replacement, motor and drive replacement, and spare parts lists.

**1.5 DELIVERY, STORAGE AND HANDLING**

- A. Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

## 1.6 WARRANTY

- A. Provide a manufacturer's parts and labor warranty against factory defects in material and workmanship for the entire unit for a period of 1 year after startup or 18 months from shipment.
- B. Provide an extended manufacturer's warranty for a period of two year(s) beyond the warranty period listed above against factory defects in material and workmanship (including paint) for the entire unit.

## 1.7 GENERAL DESCRIPTION

- A. Equipment Location:
  - 1. The energy recovery wheel will be located in air handling unit (AHU-1) that is in the mechanical penthouse.
- B. Unit Description:
  - 1. Refer to energy recovery wheel schedule for additional information.

## PART 2 - PRODUCTS

### 2.1 ACCEPTABLE MANUFACTURERS

- A. Semco
- B. Or Approved Equal

### 2.2 INTERNAL COMPONENTS

- A. Energy Recovery Wheel: Provided and installed by unit manufacturer.
  - 1. Wheel shall provide both sensible and latent heat recovery and be designed to ensure laminar flow.
  - 2. The media shall be fluted, honeycomb in design to provide for laminar flow to minimize the leakage of the exhaust air to the supply air through the media. The rotor media shall be made of aluminum or a synthetic matrix that is coated with a non-migrating, 3 angstrom (maximum) molecular sieve desiccant, specifically developed for the selective transfer of water vapor. Silica gel, oxidized aluminum, and other non-molecular desiccants are not acceptable.
  - 3. Verification in writing shall be presented from the desiccant manufacturer confirming that the internal pore diameter distribution inherent in the desiccant being provided limits absorption to materials having a kinetic diameter of 3 angstrom or less (water molecule is 2.8 angstroms). All media surfaces shall be coated with a non-migrating solid absorbent layer prior to being formed into the honeycomb media structure. Surfaces sprayed, dip coated, or desiccants that must be reapplied over time are not acceptable. The media shall be cleanable with low temperature steam, hot water or light detergent, without degrading the latent recovery
  - 4. Latent recovery efficiency shall be at least as high as sensible efficiency. Impregnated desiccants in non-metallic substrates such as paper, plastic, synthetic or glass fiber will not be acceptable.

5. Enthalpy wheel cassette shall be complete with face seal and perimeter seal to prevent cross leakage between the two air streams. Both seals shall be non-wearable to minimize leakage from occurring at the seal.
6. Energy recovery effectiveness values shall be tested in accordance with ASHRAE 84 and ARI Standard 1061.
7. Casing: Rotor casing shall be provided with structural framework that limits the deflection of the rotor due to air pressure differential to less than 1/32 inch. Framing shall be galvanized or finished with a corrosion resistant paint. Casing shall be galvanized steel with an epoxy coating. Support rotor from two pillow block bearings which can be maintained or replaced without removal of the rotor from its casing or the media from its spoke system.
8. Frame: The rotor frame shall be industrial spoke system made of aluminum providing the structural integrity required at design pressure differentials.
9. Drive: Rotor shall be driven from belt system and electric motor. Wheel shall be perimeter driven with speed reduction by pulley change out. Rotor belt shall have no need for a take-up pulley and no field adjustments required (0% stretch after initial tension). Provide motor with internal overload protection.
10. Frost Control: Provide a bypass damper for frost control.
11. Media Cleaning:
  - a. The media shall be cleanable with low pressure steam (less than 5 psi), hot water or light detergent, without degrading the latent recovery. Dry particles up to 800 microns shall freely pass through the media. Enthalpy wheel shall be self-cleaning by two counter flow air streams.
12. Purge Section:
  - a. Unit to be provided with a factory set, field adjustable purge section designed to limit cross contamination to less than 0.04 percent of the exhaust flow rate.

### **PART 3 - EXECUTION**

#### **3.1 FACTORY REPRESENTATION DURING INSTALLATION**

- A. Representative shall ensure proper installation and section connection methods are employed.

#### **3.2 MANUFACTURER RESPONSIBILITIES**

- A. Manufacturer shall inspect unit installation and assist in start-up and balancing of unit. Manufacturer's start-up engineer shall assist in commissioning of all unit functions and submit report containing all data recorded and a certification that the unit is operating properly.

#### **3.3 CONTRACTOR RESPONSIBILITIES**

- A. Install all items in accordance with manufacturer's instructions.



- B. During construction provide temporary closures of metal or taped polyethylene over openings into housing ducts to prevent dust from entering ductwork.
- C. Seal all contractor installed penetrations airtight. Seal all openings prior to cleaning. Seal holes with proper SMACNA closures conforming to pressure class of the housing.
- D. Clean dust and debris from each section of housing after it is installed. Clean inside of fan housings, fan scrolls, and coils of all units.
- E. Do not damage lining or devices in process of cleaning. Replace any damaged material.
- F. When installing field installed components (piping, electrical, etc.), Contractor shall protect manufacturer installed finishes (i.e., epoxy coating, etc.). If any damage occurs, the Contractor shall repair finishes as required to match existing finishes per manufacturer's recommendations.

**END OF SECTION**

**SECTION 23 05 00**  
**BASIC HVAC REQUIREMENTS**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Requirements applicable to all Division 23 Sections. Also refer to Division 1 - General Requirements.
- B. All materials and installation methods shall conform to the applicable standards, guidelines and codes referenced in the specification section.

**1.2 WORK SEQUENCE**

- A. All work that will produce excessive noise or interference with normal building operations, as determined by the Owner, shall be scheduled with the Owner. It may be necessary to schedule such work during unoccupied hours. The Owner reserves the right to determine when restricted construction hours will be required.

**1.3 QUALITY ASSURANCE**

- A. Contractor's Responsibility Prior to Submitting Pricing Data:
  - 1. The Contractor is responsible for constructing complete and operating systems. The Contractor acknowledges and understands that the Contract Documents are a two-dimensional representation of a three-dimensional object, subject to human interpretation. This representation may include imperfect data, interpreted codes, utility guidelines, three-dimensional conflicts, and required field coordination items. Such deficiencies can be corrected when identified prior to ordering material and starting installation. The Contractor agrees to carefully study and compare the individual Contract Documents and report at once in writing to the Design Team any deficiencies the Contractor may discover. The Contractor further agrees to require each subcontractor to likewise study the documents and report at once any deficiencies discovered.
  - 2. The Contractor shall resolve all reported deficiencies with the Architect/Engineer prior to awarding any subcontracts, ordering material, or starting any work with the Contractor's own employees. Any work performed prior to receipt of instructions from the Design Team will be done at the Contractor's risk.
- B. Qualifications:
  - 1. Only products of reputable manufacturers are acceptable.
  - 2. All Contractors and subcontractors shall employ only workers skilled in their trades.
- C. Compliance with Codes, Laws, Ordinances:
  - 1. Conform to all requirements of the City of Joliet Codes, Laws, Ordinances and other regulations having jurisdiction.
  - 2. Conform to all published standards of Joliet Junior College.

3. Conform to all State Codes.
4. If there is a discrepancy between the codes and regulations and these specifications, the Engineer shall determine the method or equipment used.
5. If the Contractor notes, at the time of bidding, any parts of the drawings or specifications that do not comply with the codes or regulations, he shall inform the Architect/Engineer in writing, requesting a clarification. If there is insufficient time for this procedure, he shall submit with his proposal a separate price to make the system comply with the codes and regulations.
6. All changes to the system made after letting of the contract, to comply with codes or requirements of Inspectors, shall be made by the Contractor without cost to the Owner.
7. If there is a discrepancy between manufacturer's recommendations and these specifications, the manufacturer's recommendations shall govern.
8. All rotating shafts and/or equipment shall be completely guarded from all contact. Partial guards and/or guards that do not meet all applicable OSHA standards are not acceptable. Contractor is responsible for providing this guarding if it is not provided with the equipment supplied.

D. Permits, Fees, Taxes, Inspections:

1. Procure all applicable permits and licenses.
2. Abide by all laws, regulations, ordinances, and other rules of the State or Political Subdivision where the work is done, or as required by any duly constituted public authority.
3. Pay all charges for permits or licenses.
4. Pay all fees and taxes imposed by the State, Municipal and/or other regulatory bodies.
5. Pay all charges arising out of required inspections by an authorized body.
6. Pay all charges arising out of required contract document reviews associated with the project and as initiated by the Owner or authorized agency/consultant.
7. Where applicable, all fixtures, equipment and materials shall be approved or listed by Underwriter's Laboratories, Inc.

E. Examination of Drawings:

1. The drawings for the mechanical work are completely diagrammatic, intended to convey the scope of the work and to indicate the general arrangements and locations of equipment, outlets, etc., and the approximate sizes of equipment.
2. Contractor shall determine the exact locations of equipment and rough-ins, and the exact routing of pipes and ducts to best fit the layout of the job.
3. Scaling of the drawings is not sufficient or accurate for determining these locations.

4. Where job conditions require reasonable changes in indicated arrangements and locations, such changes shall be made by the Contractor at no additional cost to the Owner.
5. Because of the scale of the drawings, certain basic items, such as fittings, boxes, valves, unions, etc., may not be shown, but where required by other sections of the specifications or required for proper installation of the work, such items shall be furnished and installed.
6. If an item is either on the drawings or in the specifications, it shall be included in this contract.
7. Determination of quantities of material and equipment required shall be made by the Contractor from the documents. Where discrepancies arise between drawings, schedules and/or specifications, the greater number shall govern.
8. Where used in mechanical documents, the word "furnish" shall mean supply for use, the word "install" shall mean connect complete and ready for operation, and the word "provide" shall mean to supply for use and connect complete and ready for operation.
  - a. Any item listed as furnished shall also be installed, unless otherwise noted.
  - b. Any item listed as installed shall also be furnished, unless otherwise noted.

F. Field Measurements:

1. Verify all pertinent dimensions at the job site before ordering any materials or fabricating any supports, pipes or ducts.

G. Electronic Media/Files:

1. Construction drawings for this project have been prepared utilizing Revit.
2. Contractors and Subcontractors may request electronic media files of the contract drawings and/or copies of the specifications. Specifications will be provided in PDF format.
3. Upon request for electronic media, the Contractor shall complete and return a signed "Electronic File Transmittal" form provided by IMEG.
4. If the information requested includes floor plans prepared by others, the Contractor will be responsible for obtaining approval from the appropriate Design Professional for use of that part of the document.
5. The electronic contract documents can be used for preparation of shop drawings and as-built drawings only. The information may not be used in whole or in part for any other project.
6. The drawings prepared by IMEG for bidding purposes may not be used directly for ductwork layout drawings or coordination drawings.
7. The use of these CAD documents by the Contractor does not relieve them from their responsibility for coordination of work with other trades and verification of space available for the installation.

8. The information is provided to expedite the project and assist the Contractor with no guarantee by IMEG as to the accuracy or correctness of the information provided. IMEG accepts no responsibility or liability for the Contractor's use of these documents.

#### **1.4 PRODUCT DELIVERY, STORAGE, HANDLING & MAINTENANCE**

- A. Exercise care in transporting and handling to avoid damage to materials. Store materials on the site to prevent damage. Keep materials clean, dry and free from harmful conditions. Immediately remove any materials that become wet or that are suspected of becoming contaminated with mold or other organisms.
- B. Coordinate the installation of heavy and large equipment with the General Contractor and/or Owner. If the Mechanical Contractor does not have prior documented experience in rigging and lifting similar equipment, he/she shall contract with a qualified lifting and rigging service that has similar documented experience. Follow all equipment lifting and support guidelines for handling and moving.
- C. Contractor is responsible for moving equipment into the building and/or site. Contractor shall review site prior to bid for path locations and any required building modifications to allow movement of equipment. Contractor shall coordinate his/her work with other trades.

#### **1.5 WARRANTY**

- A. Provide two-year warranty, unless otherwise noted, to the Owner for all fixtures, equipment, materials, and workmanship.
- B. The warranty period for all work in this Division of the specifications shall commence on the date of final acceptance, unless a whole or partial system or any separate piece of equipment or component is put into use for the benefit of any party other than the installing contractor with prior written authorization. In this instance, the warranty period shall commence on the date when such whole system, partial system or separate piece of equipment or component is placed in operation and accepted in writing by the Owner.
- C. Warranty requirements shall extend to correction, without cost to the Owner, of all Work found to be defective or nonconforming to the contract documents. The Contractor shall bear the cost of correcting all damage resulting from defects or nonconformance with contract documents.

#### **1.6 INSURANCE**

- A. Contractor shall maintain insurance coverage as set forth in Division 0 of these specifications.

#### **1.7 MATERIAL SUBSTITUTION**

- A. Where several manufacturers' names are given, the manufacturer for which a catalog number is given is the basis for job design and establishes the quality required.
- B. Equivalent equipment manufactured by the other named manufacturers may be used. Contractor shall ensure that all items submitted by these other manufacturers meet all requirements of the drawings and specifications, and fits in the allocated space.
- C. Any material, article or equipment of other unnamed manufacturers which will adequately perform the services and duties imposed by the design and is of a quality equal to or better than the material, article or equipment identified by the drawings and specifications

may be used if approval is secured in writing from the Architect/Engineer not later than ten days prior to the bid opening.

- D. This Contractor assumes all costs incurred as a result of using the offered material, article or equipment, on his part or on the part of other Contractors whose work is affected.
- E. This Contractor may list voluntary add or deduct prices for alternate materials on the bid form. These items will not be used in determining the low bidder.
- F. All material substitutions requested later than ten (10) days prior to bid opening must be listed as voluntary changes on the bid form.

## **PART 2 - PRODUCTS**

NOT APPLICABLE

## **PART 3 - EXECUTION**

### **3.1 JOBSITE SAFETY**

- A. Neither the professional activities of the Engineer, nor the presence of the Engineer or his or her employee and subconsultants at a construction site, shall relieve the Contractor and other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. The Engineer and his or her personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Contractor is solely responsible for jobsite safety. The Engineer and the Engineer's consultants shall be indemnified and shall be made additional insureds under the Contractor's general liability insurance policy.

### **3.2 ENGINEER OBSERVATION OF WORK**

- A. The Engineer will have the opportunity to review the installation and provide a written report noting deficiencies requiring correction. The Contractor's schedule shall account for these reviews and show them as line items in the approved schedule.
- B. Final Observation
  - 1. All work must be complete prior to the Engineer's review. This includes, but is not limited to:
    - a. Pipe insulation is installed and fully sealed.
    - b. Pipe identification tags are installed.
  - 2. In order to prevent the Final Observation from occurring too early, the Contractor shall review the status of the work and certify, in writing, that the work is ready for the Above-Ceiling Final Observation.
  - 3. It is understood that if the Engineer finds the ceilings have been installed prior to this review and prior to 7 days elapsing, the Engineer may not recommend

further payments to the contractor until such time as full access has been provided.

### **3.3 PROJECT CLOSEOUT**

- A. The following paragraphs supplement the requirements of Division 1.
- B. Final Jobsite Observation:
  - 1. In order to prevent the Final Jobsite Observation from occurring too early, the Contractor is required to review the completion status of the project and certify that the job is ready for the final jobsite observation.
  - 2. Attached to the end of this section is a typical list of items that represent the degree of job completeness expected prior to requesting a review.
  - 3. Upon Contractor certification that the project is complete and ready for a final punch, the Contractor shall sign the attached certification and return it to the Architect/Engineer so that the final observation can be scheduled.
  - 4. It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.
- C. Before final payment is authorized, This Contractor must submit the following:
  - 1. Record documents including marked-up or reproducible drawings and specifications.
  - 2. A report documenting the instructions given to the Owner's representatives complete with the number of hours spent in the instruction. The report shall bear the signature of an authorized agent of This Contractor and shall be signed by the Owner's representatives.
  - 3. Inspection by State Boiler Inspector.
  - 4. Start-up reports on all equipment requiring a factory installation inspection or start-up.
  - 5. Provide spare parts, maintenance, and extra materials in quantities specified in individual specification sections. Deliver to project site and place in location as directed; receipt by Architect/Engineer required prior to final payment approval.

### **3.4 RECORD DOCUMENTS**

- A. The following paragraph supplements Division 1 requirements:
 

Contractor shall maintain at the job site a separate and complete set of mechanical drawings and specifications on which he shall clearly and permanently mark in complete detail all changes made to the mechanical systems.
- B. Mark drawings to indicate revisions to piping and ductwork, size and location, both exterior and interior; including locations of coils, dampers, other control devices, filters, and other units requiring periodic maintenance or repair; actual equipment locations, dimensioned from column lines; actual inverts and locations of underground piping;

concealed equipment, dimensioned from column lines; mains and branches of piping systems, with valves and control devices located and numbered, concealed unions located, and with items requiring maintenance located (e.g., traps, strainers, expansion compensators, tanks, etc.); Change Orders; concealed control system devices.

- C. Before completion of the project, a set of reproducible mechanical drawings will be given to the Contractor for transfer of all as-built conditions from the paper set maintained at the job site. All marks on reproducible shall be clear and permanent.
- D. Mark specifications to show approved substitutions; Change Orders, and actual equipment and materials used.
- E. Record changes daily and keep the marked drawings available for the Architect/Engineer's examination at any normal work time.
- F. Upon completing the job, and before final payment is made, give the marked-up drawings to the Engineer.

### **3.5 ADJUST AND CLEAN**

- A. Thoroughly clean all equipment and systems prior to the Owner's final acceptance of the project. Clean all foreign paint, grease, oil, dirt, labels, stickers, and other foreign material from all equipment.
- B. Clean all drain pans and areas where moisture is present. Immediately report any mold, biological growth, or water damage.
- C. Remove all rubbish, debris, etc., accumulated during construction from the premises.

### **3.6 SPECIAL REQUIREMENTS**

- A. Contractor shall coordinate the installation of all equipment, valves, dampers, operators, etc., with other trades to maintain clear access area for servicing.
- B. All equipment shall be installed in such a way to maximize access to parts needing service or maintenance. Review the final field location, placement, and orientation of equipment with the Owner's designated representative prior to setting equipment.
- C. Installation of equipment or devices without regard to coordination of access requirements and confirmation with the Owner's designated representative will result in removal and reinstallation of the equipment at the Contractor's expense.

END OF SECTION



### READINESS CERTIFICATION PRIOR TO FINAL JOBSITE OBSERVATION

In order to prevent the final job observation from occurring too early, we require that the Contractor review the completion status of the project and, by copy of this document, certify that the job is indeed ready for the final job observation. The following is a typical list of items that represent the degree of job completeness expected prior to your requesting a final job observation.

1. Pipe insulation complete and pipes labeled.

Accepted by:

Prime Contractor \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_

Upon Contractor certification that the project is complete and ready for a final job observation, we require the Contractor to sign this agreement and return it to the Engineer so that the final observation can be scheduled.

It is understood that if the Engineer finds the job not ready for the final observation and that additional trips and observations are required to bring the project to completion, the costs incurred by the Engineers for additional time and expenses will be deducted from the Contractor's contract retainage prior to final payment at the completion of the job.

\* \* \* \* \*

## **SECTION 23 05 05**

### **HVAC DEMOLITION FOR REMODELING**

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Mechanical demolition.
- B. Cutting and Patching.

#### **PART 2 - PRODUCTS**

##### **2.1 MATERIALS AND EQUIPMENT**

- A. Materials and equipment shall be as specified in individual Sections.

#### **PART 3 - EXECUTION**

##### **3.1 EXAMINATION**

- A. The drawings are intended to indicate the general scope of work and do not show every pipe, duct, or piece of equipment that must be removed. The contractor shall visit the site and verify conditions prior to submitting a bid.
- B. Coordinate work with all other Contractors and the Owner. Schedule removal of equipment to avoid conflicts.
- C. This Contractor shall verify all existing equipment sizes and capacities where equipment is scheduled to be replaced or modified, prior to ordering new equipment.
- D. Bid submittal shall mean the Contractor has visited the project site and verified existing conditions and scope of work.

##### **3.2 PREPARATION**

- A. Provide temporary connections to maintain existing systems in service during construction. When work must be performed on operating equipment, use personnel experienced in such operations.

##### **3.3 DEMOLITION AND EXTENSION OF EXISTING MECHANICAL WORK**

- A. Demolish and extend existing mechanical work under provisions of Division 2 and this Section.
- B. Repair adjacent construction and finishes damaged during demolition and extension work.
- C. Maintain access to existing mechanical installations which remain.
- D. Extend existing installations using materials and methods compatible with existing installations, or as specified.

### **3.4 CUTTING AND PATCHING**

- A. Repair existing construction as required after penetration is complete to restore to original condition. Use similar materials and match adjacent construction unless otherwise noted or agreed to by the Engineer prior to start of work.
- B. This Contractor is responsible for all costs incurred in repair, relocations, or replacement of any cables, conduits, or other services if damaged without proper investigation.

### **3.5 CLEANING AND REPAIR**

- A. Clean and repair existing materials and equipment which remain or are to be reused.
- B. Clean all systems adjacent to project which are affected by the dust and debris caused by this construction.
- C. MECHANICAL ITEMS REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL DISPOSE OF MATERIAL THE OWNER DOES NOT WANT TO REUSE OR RETAIN FOR MAINTENANCE PURPOSES.

**END OF SECTION**

**SECTION 23 05 29**  
**HVAC SUPPORTS AND ANCHORS**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Hangers, Supports, and Associated Anchors.

**1.2 WORK FURNISHED BUT INSTALLED UNDER OTHER SECTIONS**

- A. Furnish sleeves and hanger inserts to General Contractor for placement into formwork.

**1.3 REFERENCES**

- A. MSS SP-58 - Pipe Hangers and Supports - Materials, Design, and Manufacture.  
 B. MSS SP-69 - Pipe Hangers and Supports - Selection and Application.  
 C. MSS SP-89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

**PART 2 - PRODUCTS**

**2.1 HANGER RODS**

- A. Hanger rods for single rod hangers shall conform to the following:

Pipe Size	Column #1
4" and 5"	5/8"
6"	3/4"

Column #1: Steel pipe.

- B. Rods for double rod hangers may be reduced one size. Minimum rod diameter is 3/8 inches.
- C. Hanger rods and accessories used in mechanical spaces or otherwise dry areas shall have ASTM B633 electro-plated zinc finish.

**2.2 PIPE HANGERS AND SUPPORTS**

- A. All pipe hangers, clamps, and supports shall conform to Manufacturers Standardization Society MSS-SP-69.
- B. Oversize all hangers, clamps, and supports on insulated piping to allow insulation and jacket to pass through unbroken. This applies to both hot and cold pipes.

- C. Ferrous hot piping 2-1/2 inches and larger shall have steel saddles tack welded to the pipe at each support at a depth not less than the specified insulation. Factory fabricated inserts may be used.

Acceptable Products:

Anvil - Fig. 160, 161, 162, 163, 164, 165  
 Cooper/B-Line - Fig. 3160, 3161, 3162, 3163, 3164, 3165  
 Erico - Model 630, 631, 632, 633, 634, 635  
 Nibco/Tolco - Fig. 260-1, 261-1 1/2, 262-2, 263-2 1/2, 264-3, 265-4

- D. On all insulated piping, provide a semi-cylindrical metallic shield and fire resistant vapor barrier jacket.

- E. As an alternative to separate pipe insulation insert and saddle, properly sized integral rigid insulation sections may be used for this application.

Acceptable Products:

Cooper/B-Line - Fig. B3380 through B3384  
 Pipe Shields - A1000, A2000  
 Erico - Model 124, 127

- F. Unless otherwise indicated, hangers shall be as follows:

1. Clevis Type:

Service: Insulated Cold Pipe

Acceptable Products: Bare Steel

Anvil	Fig. 260
Cooper/B-Line	Fig. 3100
Erico	Model 400
Nibco/Tolco	Fig. 1

2. Roller Type:

Service: Insulated Hot Pipe - 4 inches and Larger

Acceptable Products: 4" through 6"

Anvil	Fig. 181, 271
Cooper/B-Line	Fig. 3110, 3117
Erico	Model 610
Nibco/Tolco	Fig. 324, 327

- G. Support may be fabricated from U-Channel strut or similar shapes. Piping less than 4" in diameter shall be secured to strut with clamps of proper design and capacity as required to maintain spacing and alignment. Strut shall be independently supported from hanger drops or building structure. Size and support shall be per manufacturer's installation requirements for structural support of piping. Clamps shall not interrupt piping insulation.

1. Strut used in mechanical spaces or otherwise dry areas shall have ASTM B633 electro-plated zinc finish.

H. Unless otherwise indicated, pipe supports for use with struts shall be as follows:

1. Clamp Type:

Service: Insulated Cold Pipe

- a. Pipes subject to expansion and contraction shall have clamps slightly oversized to allow limited pipe movement.

Acceptable Products:	Bare Steel, Plastic or Insulated Pipe
----------------------	------------------------------------------

Unistrut	Fig. P1100 or P2500
Cooper/B-Line	Fig. B2000 or B2400
Nibco/Tolco	Fig. A-14 or 2STR

2. Roller Type:

Service: Insulated Hot Pipe - 4 inches and larger.

Acceptable Products:	4" through 6"
----------------------	---------------

Unistrut	Fig. P2474
Cooper/B-Line	Fig. B218
Nibco/Tolco	Fig. ROL-12

I. Unless otherwise shown, upper attachments for hanger rods or support struts shall be as follows:

1. Beam Clamps:

Acceptable Products:	
----------------------	--

Anvil	Fig. 228, 292
Cooper/B-Line	Fig. B3054
Erico	Model 360
Nibco/Tolco	Fig. 329

J. Welding:

1. Unless otherwise noted, hangers, clips, and auxiliary support steel may be welded in lieu of bolting, clamping, or riveting to the building structural frame. Take adequate precautions during all welding operations for fire prevention and for protecting walls and ceilings from being damaged by smoke.

## 2.3 PIPE ANCHORS

- A. Provide all items needed to allow adequate expansion and contraction of all piping. All piping shall be supported, guided, aligned, and anchored as required.
- B. Repair all piping leaks and associated damage. Pipes shall not rub on any part of the building.

## 2.4 FINISH

- A. Prime coat exposed steel hangers and supports. Hangers and supports pipe shafts, and suspended ceiling spaces are not considered exposed.

## PART 3 - EXECUTION

### 3.1 HVAC SUPPORTS AND ANCHORS

- A. Install all items per manufacturer's instructions.
- B. Support all piping to avoid objectionable or excessive stress, deflection, swaying, sagging or vibration in the piping or building structure during erection, cleaning, testing and normal operation of the systems.
- C. Do not, however, restrain piping to cause it to snake or buckle between supports or to prevent proper movement due to expansion and contraction.
- D. Piping shall not introduce strains or distortion to connected equipment.
- E. Furnish, install and prime all auxiliary structural steel for support of piping systems that are not shown on the Drawings as being by others.
- F. Install hangers and supports complete with lock nuts, clamps, rods, bolts, couplings, swivels, inserts and required accessories.
- G. Hangers for horizontal piping shall have adequate means of vertical adjustment for alignment.
- H. Parallel horizontal pipes may be supported on trapeze hangers made of structural shapes and hanger rods; otherwise, pipes shall be supported with individual hangers.
- I. Coordinate the location and method of support of piping systems with all installations under other Divisions and Sections of the Specifications.
- J. Provided the installation complies with all loading requirements of truss and joist manufacturers, the following practices are acceptable:
  - 1. Loads of 100 lbs. or less may be attached anywhere along the top or bottom chords of trusses or joists with a minimum 3' spacing between loads.
  - 2. Loads greater than 100 lbs. must be hung concentrically and may be hung from top or bottom chord, provided one of the following conditions is met:
    - a. The hanger is attached within 6" from a web/chord joint.
    - b. Additional L2x2x1/4 web reinforcement is installed per manufacturer's requirements.
  - 3. It is prohibited to cantilever a load using an angle or other structural component that is attached to a truss or joist in such a fashion that a torsional force is applied to that structural member.
  - 4. If conditions cannot be met, coordinate installation with truss or joist manufacturer and contact Architect/Engineer.
- K. Do not exceed 25 lbs. per hanger and a minimum spacing of 2'-0" on center when attaching to metal roof decking (limitation not required with concrete on metal deck). This 25 lbs. load and 2'-0" spacing include adjacent electrical and architectural items hanging from deck. If the hanger restrictions cannot be achieved, supplemental framing off steel framing will need to be added.

- L. Do not exceed the manufacturer's recommended maximum load for any hanger or support.
- M. Provide additional supports where pipe changes direction, adjacent to flanged valves and strainers, at equipment connections and heavy fittings.
- N. Provide at least one hanger adjacent to each joint in grooved end steel pipe with mechanical couplings.
- O. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.
- P. Spacing of Hangers shall not exceed the compressive strength of the insulation inserts, and in no case shall exceed the following:

	<u>Pipe Material</u>	<u>Maximum Spacing</u>
1.	Steel (Std. Weight or Heavier – Liquid Service): 4" & larger	12'-0"
2.	Installation of hangers shall conform to MSS SP-69, MSS SP-89 and the applicable Plumbing Code.	

#### END OF SECTION



**SECTION 23 05 53**  
**HVAC IDENTIFICATION**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Identification of products installed under Division 23.

**1.2 REFERENCES**

- A. ANSI/ASME A13.1 - Scheme for the Identification of Piping Systems.

**PART 2 - PRODUCTS**

**2.1 ACCEPTABLE MANUFACTURERS**

- A. 3M, Bunting, Calpico, Craftmark, Emedco, Kolbi Industries, Seton, W.H. Brady, Marking Services.

**2.2 MATERIALS**

- A. All pipe markers (purchased) shall conform to ANSI A13.1. Letter sizes shall be at least the following:

<u>O.D. of Pipe or insulation</u>	<u>Size of Letters</u>
2-1/2" to 6"	2-1/2"

- B. Plastic Pipe Markers: Semi-rigid plastic, preformed to fit around pipe or pipe covering; indicating flow direction and fluid conveyed.
- C. Vinyl Pipe Markers: Colored vinyl with permanent pressure sensitive adhesive backing.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. Install all products per manufacturer's recommendations.
- B. Degrease and clean surfaces to receive adhesive for identification materials.
- C. Pipe Markers:
1. Adhesive Backed Markers: Use Brady Style 1, 2, or 3 on pipes 3" diameter and larger. Use Brady Style 4, 6, or 8 on pipes under 3" diameter. Similar styles by other listed manufacturers are acceptable. Secure all markers at both ends with a wrap of pressure sensitive tape completely around the pipe.
  2. Snap-on Markers: Use Seton "Setmark" on pipes up to 5-7/8" OD. Use Seton "Setmark" with nylon or Velcro ties for pipes 6" OD and over. Similar styles by other listed manufacturers are acceptable.

**3.2 SCHEDULE**

A. Pipes to be marked:

Pipe Service	Lettering Color	Background Color
Heating Water Return	Black	Yellow

**END OF SECTION**

**SECTION 23 07 19**  
**HVAC PIPING INSULATION**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Piping Insulation.

**1.2 REFERENCES**

- A. ANSI/ASTM C195 - Mineral Fiber Thermal Insulation Cement.
- B. ANSI/ASTM C533 - Calcium Silicate Block and Pipe Thermal Insulation.
- C. ASTM B209 - Aluminum and Aluminum-alloy Sheet and Plate.
- D. ASTM C591 - Unfaced Preformed Rigid Cellular Polyisocyanurate Insulation.
- E. National Commercial & Industrial Insulation Standards - 1999 Edition - as published by Midwest Insulation Contractors Association and endorsed by National Insulation Contractors Association.

**1.3 QUALITY ASSURANCE**

- A. Applicator: Company specializing in piping insulation application with five years minimum experience.
- B. Materials: Flame spread/smoke developed rating of 25/50 in accordance with ASTM E84, NFPA 255, or UL 723 (where required).

**PART 2 - PRODUCTS**

**2.1 INSULATION**

- A. Type A: Glass fiber; ANSI/ASTM C547; 0.24 maximum 'K' value at 75°F; non-combustible. All purpose, white kraft jacket bonded to aluminum foil and reinforced with fiberglass yarn, 25/50 flame spread/smoke developed rating.

**PART 3 - EXECUTION**

**3.1 PREPARATION**

- A. Install insulation after piping has been tested. Pipe shall be clean, dry and free of rust before applying insulation.

**3.2 INSTALLATION**

- A. Install materials per manufacturer's instructions, building codes and industry standards.
- B. Continue insulation with vapor barrier through penetrations. This applies to all insulated piping. Maintain fire rating of all penetrations.

- C. On exposed piping, locate and cover seams in least visible locations.
- D. On insulated piping operating below 60°F, insulate fittings, valves, unions, flanges, strainers, flexible connections, flexible hoses, and expansion joints. Seal all penetrations of vapor barrier.
- E. On insulated piping operating between 60°F and 140°F, do not insulate flanges and unions, but bevel and seal ends of insulation at such locations. Insulate all fittings, valves and strainers.
- F. On all insulated piping, provide at each support an insert of same thickness and contour as adjoining insulation, between the pipe and insulation jacket, to prevent insulation from sagging and crushing. The insert shall be suitable for planned temperatures, be suitable for use with specific pipe material, and shall be a 180° cylindrical segment the same length as metal shields. Inserts shall be a cellular glass or molded hydrous calcium silicate, with a minimum compressive strength of 50 psi. High density polyisocyanurate insulation with a compressive strength of 24 psi is acceptable for pipe sizes below 6", 50 psi over 6", and operate below 260°F. Factory fabricated inserts may be used. Rectangular blocks, plugs, or wood material are not acceptable. Temporary wood blocking may be used by the Piping Contractor for proper height; however, these must be removed and replaced with proper inserts by the Insulation Contractor.
- G. Neatly finish insulation at supports, protrusions, and interruptions.
- H. Install metal shields between all hangers or supports and the pipe insulation. Shields shall be galvanized sheet metal, half-round with flared edges. Adhere shields to insulation. On cold piping, seal the shields vapor-tight to the insulation as required to maintain the vapor barrier, or add separate vapor barrier jacket.
- I. Shields shall be at least the following lengths and gauges:

	Pipe Size	Shield Size
1.	4"	12" long x 16 gauge
2.	5" to 6"	18" long x 16 gauge

### 3.3 INSULATION

- A. Type A Insulation:
  - 1. All Service Jackets: Seal all longitudinal joints with self-seal laps using a single pressure sensitive adhesive system. Do not staple.
  - 2. Insulation without self-seal lap may be used if installed with Benjamin Foster 85-20 or equivalent Chicago Mastic, 3M or Childers lap adhesive.
  - 3. Apply insulation with laps on top of pipe.
  - 4. Fittings, Valve Bodies and Flanges: For 4" and smaller pipes, insulate with 1 lb. density insulation wrapped under compression to a thickness equal to the adjacent pipe insulation. For pipes over 4", use mitered segments of pipe insulation. Finish with preformed plastic fitting covers. Secure fitting covers with pressure sensitive tape at each end. Overlap tape at least 2" on itself. For pipes operating below 60°F, seal fitting covers with vapor retarder mastic in addition to tape.

### END OF SECTION

**SECTION 23 21 00****HYDRONIC PIPING****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. Pipe and Pipe Fittings.
- B. Heating Water Piping System.

**1.2 REFERENCES**

- A. ANSI/AWS D1.1 - Structural Welding Code.
- B. ASME B16.5 - Pipe Flanges and Flanged Fittings.
- C. ASME B16.21 - Nonmetallic Flat Gaskets for Pipes Flanges.
- D. ASME B18.2.1 - Square and Hex Bolts and Screws, Inch Series.
- E. ASME B18.2.2 - Square and Hex Nuts, Inch Series.
- F. ASME Section 9 - Welding and Brazing Qualifications.
- G. ASTM A234 - Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service.
- H. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- I. ASTM E90-02 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions
- J. ASTM E413-87 - Classification for Rating Sound Insulation

**1.3 QUALITY ASSURANCE**

- A. Welding Materials, Procedures, and Operators: Conform to ASME Section 9, ANSI/AWS D1.1, and applicable state labor regulations.

**1.4 DELIVERY, STORAGE, AND HANDLING**

- A. Store and protect piping to prevent entrance of foreign matter into pipe and to prevent exterior corrosion.

**PART 2 - PRODUCTS****2.1 HEATING WATER**

- A. Design Pressure: 125 psig.  
Maximum Design Temperature: 250°F. (230°F for grooved couplings)

**B. Piping - 2-1/2" and Over:**

1. Pipe: Standard weight black steel, beveled ends, ASTM A53, Type E or S, Grade B.
2. Joints: Butt-welded or flanged.
3. Fittings: Standard weight wrought steel, butt-welding type, ASTM A234, ASME B16.9.
4. Flanges: Class 150 forged steel, welding neck or slip-on, ASTM A181 or A105, Class 60, ASME B16.5 up to 24" and B16.47 above 24". ASME B16.1 for flanges mating with flat face equipment flanges.

**C. Piping - 2-1/2" and Over:**

1. Pipe: Standard weight black steel, grooved ends, ASTM A53, Type E or S, Grade B.
2. Joints: Grooved type, with Grade E EPDM molded pressure-responsive gaskets suited for 32°F to 230°F per ASTM D2000.
3. Fittings: ASTM A536 Grade 65-45-12 ductile or A47 malleable iron, grooved type.
4. Flanges: Grooved end, flanged adapter

**PART 3 - EXECUTION****3.1 PREPARATION**

- A. Ream pipe and tube ends, remove burrs, bevel plain end ferrous pipe.
- B. Remove scale and dirt on inside and outside before assembly.

**3.2 TESTING PIPING**

- A. Heating Water:
  1. Complete testing before insulation is applied. If insulation is applied before pipe is tested and a leak ruins the insulation, replace all damaged insulation.
  2. Test the pipe with 100 psig water pressure. Hold pressure for at least two hours.

**3.3 INSTALLATION**

- A. Route piping in orderly manner, straight, plumb, with consistent pitch, parallel to building structure, with minimum use of offsets and couplings. Provide only offsets required for needed headroom or clearance and needed flexibility in pipe system.
- B. Install piping to conserve building space, and not interfere with other work.
- C. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.

- D. Provide clearance for installation of insulation, and access to valves and fittings.
- E. Prepare pipe, fittings, supports, and accessories for finish painting.
- F. Arrange piping and piping connections so equipment may be serviced or totally removed without disturbing piping beyond final connections and associated shut-off valves.
- G. Reducers are generally not shown. Where pipe sizes change at tee, the tee shall be the size of the largest pipe shown connecting to it. Where pipe sizes are not shown, the larger size in either direction shall continue through the fitting nearest to the indication of a smaller pipe size.
- H. Provide flanges or unions at all final connections to equipment, traps and valves.
- I. Unless otherwise indicated, branch take-offs shall be at either a 45° or 90° angle from the horizontal plane to not allow air to be trapped in pipe.

### 3.4 PIPE ERECTION AND LAYING

- A. Carefully inspect all pipe and fittings prior to installation. Immediately reject and remove from the job any items which are unsuitable, cracked or otherwise defective.
- B. All pipe and fittings shall have factory-applied markings, stampings, or nameplates sufficient to determine their conformance with specified requirements.
- C. Exercise care at every stage of storage, handling, laying and erecting to prevent entry of foreign matter into piping and fittings. Do not erect or install any unclean item.
- D. During construction, until system is fully operational, keep all openings in piping and equipment closed at all times except when actual work is being performed on that item. Closures shall be plugs, caps, blind flanges or other items designed for this purpose.
- E. Change direction of pipes only with fittings or pipe bends. Change size only with fittings. Do not use miter fittings, face or flush bushings, or street elbows. **All fittings shall be long radius type**, unless otherwise shown on the drawings or specified. Construct welded elbows of angles not available as standard fittings by cutting and welding standard elbows to form smooth, long radius fittings.
- F. Use full and double lengths of pipe wherever possible.
- G. Cut all pipe to exact measurement and install without springing or forcing except in the case of expansion loops where cold springing is indicated on the drawings.
- H. Do not create, even temporarily, undue loads, forces or strains on valves, equipment or building elements.

### 3.5 BRANCH CONNECTIONS

- A. Make branch connections with standard tee or cross fittings of the type required for the service unless otherwise specified herein or detailed on the drawings.
- B. At the option of the Contractor, branch connections from headers and mains may be cut into black steel pipe using forged weld-on fittings.

- C. Use of forged weld-on fittings is also limited as follows:
1. Must have at least same pressure rating as the main.
  2. Header or main must be 2-1/2" or over.
  3. Branch line is at least two pipe sizes under header or main size.
- D. All branch connections off mains shall be made from top of pipe or side of pipe.

### **3.6 JOINING OF PIPE**

A. Flanged Joints:

1. Bronze flanges shall conform to B16.24 and ductile iron flanges to B16.42. Steel flanges shall be raised face except when bolted to flat face cast iron flange.
2. Bolting shall be ASTM A307 Grade B with bolts and heavy hexagonal nuts conforming to ASME B18.2.1 and B18.2.2.
3. Torque bolts in at least three passes, tightening to 1/3, 2/3, and final torque in a cross pattern with an indicating torque wrench for equal tension in all bolts.
4. Gaskets for flat face flanges shall be full-face type. Gaskets for raised faced flanges shall conform to requirements for "Group I gaskets" in ASME B16.5. All gaskets shall conform to ASME B16.21. Unless otherwise specified, gaskets shall be 3/32" thick red rubber, heavy-duty type.

B. Welded Joints:

1. Welding of all pipe joints, both as to procedures and qualification of welders, shall be in accordance with Section IX, ASME "Boiler & Pressure Vessel Code" unless local codes take precedence.
2. Furnish certificates qualifying each welder to the Owner's Representative prior to start of work.
3. The Owner's Representative reserves the right to require qualifying demonstration, at the Contractor's expense, of any welders assigned to the job.
4. Ends of pipe and fittings to be joined by butt-welding shall be beveled, cleaned to bare metal and internal diameters aligned before tack welding.
5. Backing rings shall be used for all butt weld joints 3" pipe size and over and for all sizes where operating pressure is over 200 psig and/or temperature is over 400°F. Backing rings shall be of the material being welded.

### **END OF SECTION**





**JOLIET JUNIOR COLLEGE**  
— 1901 —

## CONTRACT AGREEMENT

Purchase Order#: XXXXXX Account #: XXX-XXX-XXX.XXX

Date: XXXXXX

Project: XXXXX

Between:

Joliet Junior College  
1215 Houbolt Road  
Joliet, Illinois 60431

AND

Contractor  
Address  
Address

In the amount of \$ xxxxxxxxxxxxxxxxxxxxxxxxxxxx and 00/100

### ARTICLE 1

#### THE WORK

1.1 The Trade Contractor and JJC agree that the materials and equipment to be furnished and the work to be done by the Trade Contractor are as follows:

#### The Contract Sum includes, but is not limited to the following:

- 110% Performance and payment bond to Joliet Junior College, Illinois Community College District No. 525
- Insurance in accordance with Schedule "A" Insurance Requirements.

#### The Contract Sum excludes the following:

- All sales, consumer, use and other similar taxes on equipment and materials incorporated into the work for this project. Tax Exempt No E9992-4773-06 for Joliet Junior College, Illinois Community College District No. 525

1.2 The Trade Contractor shall be held accountable for the following Project related responsibilities: furnish all labor and supervision; furnish, supply and install all equipment, material supplies, tools, scaffolding, hoisting, transportation, unloading and handling; do all things required to complete the work described above on the Project all in accordance with the drawings, documents and specifications prepared by the Architect/Engineer/Owner; and furnish all necessary information, shop drawings, details, samples, brochures,

etc. for Owner/Architect approval, as may be required.

---

## ARTICLE 2

### TIME OF COMMENCEMENT AND COMPLETION

2.1 Trade Contractor shall start the work upon notice to proceed and shall execute the work with diligence and so as to maintain such schedules and milestones as established by JJC's Construction Manager. The Trade Contractor agrees to complete portions and the whole of the work by the following anticipated dates:

2.2 The Trade Contractor is cautioned that schedules and milestones are subject to review and revision. It is the sole responsibility of the Trade Contractor to attend job meetings, keep itself informed of any revisions, and conform to any such revisions.

2.3 In the event that the Trade Contractor should fail to maintain JJC's progress schedule or the schedule as established above, the JJC Construction Manager reserves the right, after 48 hours formal notice, either by letter or confirmed email to the Trade Contractor, to procure the materials, equipment, and labor necessary to proceed with, or to complete the work, or any portion thereof from other sources and charge the cost thereof to the Trade Contractor.

---

## ARTICLE 3

### THE CONTRACT SUM

3.1 JJC agrees to pay the Trade Contractor for the satisfactory performance of his work the total sum of:

Contract Amount:       \$.00

Contract amount is made up of the following:

- Base Bid .....\$
- Alternate Bid No. ....\$
- Total Contract Amount.....\$

Allowances (if applicable):

Unit Prices (furnished and installed unless stated otherwise)

**In current funds subject to additions and deductions for changes, as may be agreed upon, and to make payments on account thereof as follows:**

- 3.2 On the established day of each month, the Trade Contractor shall deliver to the JJC Construction Manager (2) completed copies of the JJC Payment Application Package showing values of all materials delivered and work completed up to the established billing date for which payment is being requested. It is specifically understood and agreed that prior to submission of the first statement the Trade Contractor will deliver to the JJC Construction Manager, for review and approval, a detailed breakdown of this contract sum showing a schedule of values for the various parts of the work. Once accepted, this schedule of values will be used as a basis for checking the Trade Contractor's monthly statement.
- 3.3 The Trade Contractor shall, with the second and each succeeding monthly request for payment, submit a waiver of lien showing all payments made for labor and materials and on account for all work covered in the previous months request for payment. Affidavit and waiver of liens may be required to be submitted from Trade Contractors, suppliers, and/or Trade-Trade Contractors (all tier).
- 3.3.1 The Trade Contractor shall, with the second and each succeeding monthly request for payment, submit certified payroll for all labor and sub labor.
- 3.4 Ten percent (10%) of each payment shall be retained, unless specific provisions to the contrary are indicated in the contract documents.
- 3.5 No payment made under this Agreement, including the final payment, shall be conclusive evidence of the performance of the work, either wholly or in part, and no payment shall be construed as an acceptance of defective work or improper materials.
- 3.6 The Trade Contractor shall save and keep JJC's property free from all mechanics' and material liens and all other liens and claims, legal or equitable, arising out of the Trade Contractors work hereunder. In the event any such lien or claim is filed by anyone claiming by, through, or under the Trade Contractor, the Trade Contractor shall remove and discharge same, by bonding or otherwise, within five (5) days of the filing thereof.

---

**ARTICLE 4**

**THE CONTRACT DOCUMENTS**

- 4.1 The contract documents consist of this Agreement and any exhibits attached hereto; general conditions, supplementary, special and other conditions, the drawings, specifications, general instructions to bidders, supplements to bidder's documents, form of proposal, all addenda issued prior to and all modifications issued after execution of the Agreement. Any post bid review and/or pre-construction document shall be considered part of this Agreement.
- 4.2 The Trade Contractor agrees to perform the work under the general direction of the JJC Construction Manager.
- 4.3 If there is a provision for liquidated damages in the contract documents, the Trade Contractor shall be liable for any liquidated damages by reason of the failure of the Trade Contractor to prosecute the work diligently and properly.
- 4.4 No extra work shall be performed under this Agreement, except upon receipt of a written change

order from JJC. Should the Trade Contractor proceed with any work they consider extra to this contract without a fully executed JJC change order form, it is considered at their own risk and cost.

---

## ARTICLE 5

### INSURANCE AND INDEMNITY

5.1 The Trade Contractor agrees to at the time of execution of this Agreement furnish the Construction Manager with certificates of an insurance company (or other source). These certificates should certify that the Trade Contractor is protected on the work with worker's compensation and employer's liability, public liability and bodily injury, property damage insurance, and any other insurance as required by the contract documents and in accordance with the attachment to this Agreement entitled "Insurance Specifications". The Trade Contractor will not be permitted to start work at the site until these certificates are filed with the JJC Construction Manager. Compliance by the Trade Contractor with the foregoing requirements, as to carrying insurance and furnishing certificates, shall not relieve the Trade Contractor of its liabilities and obligations.

---

## ARTICLE 6

### PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

6.1 The Trade Contractor agrees to furnish and pay for a 110% Performance Bond and a 110% Labor and Material Payment Bond. The bonds are to be delivered within 10 days of receipt of a purchase order and execution of this agreement.

---

## ARTICLE 7

### WARRANTY

7.1 The Trade Contractor agrees to promptly make good, without cost to the JJC, any and all defects, due to faulty workmanship and/or materials, which may appear within the guarantee or warranty period so established in the contract documents. If no such period be stipulated in the contract documents, then such guarantee shall be for a period of one (1) year from date of completion and acceptance of the work by JJC. The Trade Contractor further agrees to provide any and all guarantees as required by the terms of the contract documents, as a condition precedent to final payment.

---

## ARTICLE 8

### CHANGES IN THE WORK

- A. 8.1 The Trade Contractor may be ordered in writing by JJC, without invalidating this Agreement, to make changes in the work within the general scope of this Agreement. These changes may consist of additions, deletions, or other revisions, the contract sum and the contract time being adjusted accordingly. The Trade Contractor, prior to the commencement of such changed or revised work, shall submit promptly to the JJC Construction Manager written copies of any claim for adjustment

to the contract sum and contract time for such revised work in a manner consistent with the contract documents. Any extra work done by the Contractor will be considered performed at no extra cost to JJC unless a written JJC change order form has been fully executed and signed by the Director of Business and Auxiliary Services. A contractor shall not be entitled to any compensation for extra work/material based on verbal conversations or email exchanges (the contractor is considered proceeding with extra work at their own risk without a fully executed JJC change order form). It is the contractor's responsibility to obtain a fully executed change order form from JJC. A change order or a combination of multiple change orders may not exceed 10% of the original contract without JJC seeking approval from the Board of Trustees.

8.2 Where changes in the work involve both additions and deletions, percentages for overhead and profit shall be applied to the net increase only of such values for labor and materials.

8.3 The amount to be paid by the Owner for changes in the work, as outlined in paragraph 8.1 above, shall be made on the basis of one of the following methods:

- (a) by mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation and agreed upon by the JJC Construction Manager and the Trade Contractor, or
- (b) by unit prices stated in the contract documents, or
- (c) if no such unit prices are set forth and if the parties cannot agree upon a lump sum, then the actual net cost in money to the Trade Contractor of materials and labor (including insurance and applicable taxes) required, plus rental of plant equipment (other than small tools and small equipment) plus compensation for overhead and for profit as noted in Article 12, field overhead will not be considered as part of actual net cost, or
- (d) by the method provided in subparagraph 8.4.

8.4 If none of the above methods set forth in clauses 8.3 (a), 8.3 (b), 8.3 (c) is agreed upon, the Trade Contractor, provided he receives a written order signed by JJC shall promptly proceed with the work involved. The cost of such work shall be determined by the JJC Construction Manager on the basis of reasonable expenditures and savings of those performing the work attributable to the change, including, in the case of an increase in the contract sum, a reasonable allowance for overhead and profit as set forth in the bid documents. In such case, and also under clauses 8.3 (c) and 8.3 (d) above, the Trade Contractor shall keep and present, in such form as the JJC Construction Manager may prescribe, an itemized accounting together with appropriate supporting data for inclusion in a change order. Unless otherwise provided in the contract documents, cost shall be limited to the following: cost of materials including sales tax and cost of delivery, cost of labor including social security, old age and unemployment insurance and fringe benefits required by Agreement or custom; workers or workmen's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost, payments, on account shall be made as determined by the JJC. The amount of credit to be allowed by the Trade Contractor for any deletion or change which results in a net decrease in the contract sum will be the amount of the actual net cost as confirmed by JJC when both additions and credits covering related work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any with respect to that

change.

8.5 For work performed by a Trade-Trade Contractor, the Trade Contractor will be allowed to add 5% only and said Trade-Trade Contractor mark-up shall not exceed the agreed upon percentages noted in Article 11 for overhead and profit.

---

## ARTICLE 9

### TRADE CONTRACTOR RESPONSIBILITIES

9.1 The Trade Contractor shall provide sufficient, safe, and proper facilities at all times for the inspection of the work by JJC. The Trade Contractor shall, within a 24-hour notice from the JJC Construction Manager, proceed to take down all portions of the work and remove from the grounds or buildings, all materials, whether worked or unworked, which the JJC Construction Manager shall condemn as unsound or improper, or as in any way failing to conform to the contract documents. The Trade Contractor shall make good at its own expense, all work damaged or destroyed thereby.

9.2 The Trade Contractor agrees, in the performance of this Agreement, to comply with all federal, state, municipal, and local laws, ordinances, codes and governing regulations, to pay all costs and expenses required thereby; to pay all fees, charges, assessments, and taxes, including sales and use taxes, and to pay all fringe and other benefits required by Agreement or law.

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

9.4 Should the Trade Contractor become insolvent, or at any time, refuse or neglect to supply a sufficiency of properly skilled workers, or equipment and materials of the proper quality, or fail in any respect to prosecute the work with promptness and diligence, or fail in the performance of any of the Agreements herein contained, JJC shall be at liberty, after 48 hours written notice to the Trade Contractor, to provide any such labor, equipment, and materials and deduct the cost thereof, from any money then due or thereafter to become due to the Trade Contractor, under this Agreement if such refusal, neglect, or failure is sufficient ground for such actions, JJC shall also be at liberty to terminate the employment of the Trade Contractor. Consequently, JJC may enter upon the premises to take possession, for the purpose of completing the work included under this Agreement, of all materials, tools, and appliances thereon, and to employ any other person or persons to finish the work and provide the materials therefore. In case of such discontinuance of the employment, the Trade Contractor shall not be entitled to receive any further payment under this Agreement until the said work shall be wholly finished. If such expense shall exceed such unpaid balance, the Trade Contractor shall pay the difference to JJC. The expense incurred by JJC, as herein provided, either for furnishing materials, or finishing the work, and any damage incurred through such default, shall be chargeable to the Trade Contractor. In the event that a Termination for Cause is not upheld by a properly empowered judicial or arbitral authority, then the Termination for Cause shall be deemed a Termination for Convenience and construed under Section 9.4.1. hereof.

9.4.1 Notwithstanding the above paragraph, JJC reserves the right to terminate this Agreement for its convenience upon written notice to the Trade Contractor. In such instance the Trade Contractor will be paid

its share of the contract amount proportionate to the percentage of its work completed and other reasonable cancellation costs incurred as a result of said termination. No payments shall be made for anticipated overhead and profit. Prior to making any payments under this clause, JJC shall have the right to audit the records of the Trade Contractor.

9.5 The Trade Contractor agrees to adhere to the federal occupational safety act, state and local safety regulations and JJC's safety and health program so as to avoid injury or damage to persons or property, and to be directly responsible for damage to persons and property resulting from failure to do so.

9.6 In the event the Trade Contractor after a 24-hour written notice from JJC fails to take corrective action to insure compliance with said safety regulations or removal of rubbish and debris resulting from his work, JJC shall undertake these obligations and charge the cost of same to the Trade Contractor's account without further notice to the Trade Contractor.

9.7 The Trade Contractor agrees to notify the JJC Construction Manager of all accidents which may occur to persons or property and shall provide a copy of all accident reports on appropriate forms. All reports shall be signed by the Trade Contractor or his authorized representative and submitted within five (5) days of occurrence.

9.8 The Trade Contractor shall procure its materials from such sources, and employ such labor subject to contract terms and conditions in order to ensure harmonious labor relations on the site and prevent strikes or labor disputes by its employees or other trade employees. The Trade Contractor, in the event of a labor dispute including strikes, shall take whatever action is required in order to prevent the disruption of work on the Project site.

9.9 The Trade Contractor will not assign this Agreement or any moneys due or to become due under this Agreement, or sublet the whole or any part of the work to be performed hereunder, without the written consent of the Owner. In the event of such consent, a Trade-Trade Contractor must comply with all the requirements of this Agreement.

9.10 The Trade Contractor agrees that all disputes concerning the jurisdiction of trades shall be adjusted in accordance with any plan for the settlement of jurisdictional disputes which may be in effect either nationally or in the locality in which the work is being done. The Trade Contractor shall be bound by, and shall abide by, all such adjustments and settlements of jurisdictional disputes, whether or not the Trade Contractor is signature bound by the Agreement establishing the impartial jurisdictional disputes board and/or its successors. The Trade Contractor agrees not to cause work stoppage, due to the jurisdictional assignment of work.

9.11 The Trade Contractor shall submit to the JJC Construction Manager upon request, copies of orders placed for the various materials required for the Project or authentic stock lists if such material is normally a stock item. Order copies need not reflect prices but should indicate type of material, quantity, vendor name, and address, etc. The Trade Contractor shall be required to submit to the JJC Construction Manager a monthly material status report, or more often if required by the JJC Construction Manager, as a prerequisite for the monthly progress payment. The Trade Contractor shall notify the JJC Construction Manager immediately upon learning of a change of status of any material, equipment, or supplies.

9.12 The Trade Contractor shall continuously and adequately protect all his work and will immediately replace all damaged and defective work.

9.13 The Trade Contractor agrees to maintain an adequate force of experienced workers and the necessary materials, supplies, and equipment to meet the requirements of the JJC Construction Manager and other trades in order to maintain construction progress schedules, as established by the JJC Construction Manager. In the event that his force is, in the judgment of the JJC Construction Manager, inadequate to meet the established schedules during the regular working hours, the Trade Contractor agrees to work sufficient overtime hours or increase his work force to meet such schedules at no extra cost to JJC. If for reasons not already stated, the JJC Construction Manager requires and directs the Trade Contractor to work overtime, including Saturdays, Sundays or Holidays, the Trade Contractor will be reimbursed the net premium rate only. The net premium rate is understood to mean the actual premium labor cost, including applicable taxes and wage additives required by trade Agreement or by law, but without additives for overhead, labor efficiency, or profit.

9.14 The Trade Contractor agrees to employ competent administrative, supervisory, and field personnel to accomplish the work, including layout, engineering, and preparation and checking of shop drawings. If required, the Trade Contractor shall substantiate this employment of competent personnel to JJC's Construction Manager's satisfaction before initiating any work.

9.15 The Trade Contractor shall insure that all construction tools, equipment, temporary facilities, and other items used in accomplishing the work, whether purchased, rented, or otherwise provided by the Trade Contractor or provided by others, are in a safe, sound, and good condition, must be capable of performing the functions for which they are intended and must be maintained in conformance with applicable laws and regulations.

9.16 If the Trade Contractor is delayed at any time in the progress of the work by any act or neglect of JJC, the Architect/Engineer, or by any employee of either, or by any separate contractor employed by JJC, or by changes ordered in the work, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties or any causes beyond the Trade Contractor's control, or by delay authorized by JJC, or by any other cause which the JJC Construction Manager determines may justify the delay, then the contract time shall be extended by amendment for such reasonable time as the JJC Construction Manager may determine. In the event that a conflict exists between this section (9.16) and a like clause contained in a document having higher precedence, such like clause shall have preference to the extent of the conflict.

9.17 Right-To-Know- each Trade Contractor is required to implement the provisions of the right-to-know law, if any, as enacted by the state in which the work is being performed. Before using on site any material listed in the right-to-know substance list, each Trade Contractor will furnish the Construction Manager a copy of the material safety data sheet for that substance.

9.18 In the event the Trade Contractor employs independent contractors, as well as payroll labor, to discharge its obligations hereunder, the Trade Contractor acknowledges and understands that it does so at its own risk and that federal, state and/or local agencies may dispute the independent contractor status and assess penalties, fines, and costs should there be a determination to reclassify such workers. In that event, the Trade Contractor agrees that it will defend, indemnify and hold JJC harmless from any fines, costs, damages, penalties, attorneys fees, and causes of action, including without limitation, personal injury or property damage, arising out of or relating in any way to such a determination.

9.19 The Trade Contractor will have competent supervision on site at all times when work is proceeding. No subcontractor should be working on site without representation/supervision by this Trade Contractor. The JJC Construction Manager reserves the right to hire proper supervision of subcontractors, and fully back charge



this Trade Contractor for such services.

---

## ARTICLE 10

### EQUAL OPPORTUNITY

10.1 During the performance of this Agreement, the Trade Contractor agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Trade Contractor will take affirmative action to insure that applicants are employed without regard to their race, color, religion, sex, or national origin. The Trade Contractor will comply with all provisions of Executive Order No. 11246, Section 503 of the Rehabilitation Act of 1973, as Amended, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as Amended, (38 U.S.C. 4212) and their implementing regulations at 41 CFR Chapter 60.

---

## ARTICLE 11

### ALTERATIONS

11.1 The overhead and profit allowable under Article 8.3. A, 8.3 B, 8.3 C is:

- For the Trade Contractor, for any Work performed by the Trade Contractor's own forces- 12 percent of the cost
- For the Trade Contractor, for Work performed by his Subcontractor - 5 percent of the amount due the Subcontractor

11.2 All proposals, except those less than \$200 shall be accompanied by a complete itemization of costs including, labor, materials and subcontractors. Labor and material shall be itemized in the manner prescribed in Article 11.1. Where major cost items are subcontracts, they shall be itemized also. In no case will a change involving over \$200 be approved without such itemization.

---

## ARTICLE 12

### COMPLETE AGREEMENT

12.1 This Agreement, together with all documents, specifications, drawings, incorporated herein by reference, constitutes the entire Agreement between JJC and Trade Contractor. There are no terms, conditions, or provisions, either oral or written, between the parties hereto, other than those contained herein. This Agreement supersedes any and all written representations, inducements, or understandings of any kind or nature between the parties hereto, relating to the particular Project involved herein.

12.2 The said parties for themselves, their heirs, successors, executors, administrators and assigns, do hereby agree to the full performance of the covenants herein contained.

12.3 Governing Law; Venue - The validity, construction and interpretation of this Agreement shall be governed by the laws of the State of Illinois. The parties hereto irrevocably agree that all actions or proceedings in any way, manner or respect arising out of or from or related to his Agreement shall be litigated only in the Circuit Court, Twelfth Judicial Circuit, Will County, Illinois. Each party hereby consents and submits to personal jurisdiction in the State of Illinois and waives any rights such party may have to transfer the venue of any such action or proceeding.

In witness whereof they have hereunder set their hands the day and date first above written.  
In the presence of

Trade Contractor

\_\_\_\_\_  
Witness

Accepted by: \_\_\_\_\_ (Signature)

Name: \_\_\_\_\_ (Print name)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Joliet Junior College  
Owner

\_\_\_\_\_  
Witness

By: \_\_\_\_\_ (Signature)

Joliet Junior College

Name: \_\_\_\_\_ (Print name)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date:

Time:

Project Title / Location:

Project Number:

FOR

1. **Introductions:** All project members are to introduce themselves including their name, organization, title, and role on the project.

A. Joliet Junior College Personnel:

1. Construction Manager:

- a. Phone:
- b. Cell:
- c. Email:

2. Alternate Contact:

- a. Phone:
- b. Cell:
- c. Email:

B. Contractor Personnel

1. Project Manager:

- a. Phone:
- b. Cell:
- c. Email

2. Construction Superintendent:

- a. Phone:
- b. Cell:
- c. Email:

2. **Communications:**

- A. Communications related to the project between Joliet Junior College and the Contractor shall be conducted through the Joliet Junior College Construction Manager (CM) only, unless directed otherwise.
- B. In the event of an emergency the Contractor is to contact Campus Police at 815-280-2234, or may pick-up any campus phone and dial 2911.
- C. RFI's: Requests for Information (RFI's): All Requests for Information shall be in written form to JJC's CM with a copy to the A/E when required. All responses will come from JJC or the A/E in writing addressed to the Contractor's Project Manager

## Preconstruction Conference Checklist

Revision-F June 20, 2018

- D. Weekly Construction Reports: Contractor is to provide a weekly construction report to JJC CM. This report is to be inclusive of daily activities, potential delays, stoppage, problems, accidents, near misses, significant decisions, meetings, requests by JJC, etc.
- E. Correspondence: All correspondence shall be directed to the Construction Manager

Joliet Junior College  
Facilities Services Department  
ATTN: \_\_\_\_\_  
1215 Houbolt Road  
Joliet, IL 60431

Include Project Title, Project Number, Purchase Order Number on ALL correspondence.

### 3. Construction Schedule:

- A. Schedule of Values: Contractor is to provide a schedule of values (AIA document recommended) broken down into each division of the work as a minimum. The schedule of values will include as a minimum a listing of the work elements or branch values, the cost of each work element, and the percentage of total project "award" cost that the work element represents. The schedule of values will become the basis for "work elements" a.k.a. "branch values" of the Construction Schedule. These same "work elements" shall be used as the basis for the "branch values" of the Construction Progress Report as listed in item #2D above.
- B. Construction Schedule: Contractor is to submit within one week of pre-construction meeting, a fully developed gantt chart type construction schedule.
  - 1. Provide a task for each construction activity or "work element".
  - 2. No progress payment will be processed until the construction schedule is submitted and approved.
  - 3. Provide a revised, updated schedule with each progress payment request.

## Preconstruction Conference Checklist

Revision-F June 20, 2018

### Performance:

#### A. Commencement, Prosecution & Completion of Work

1. Purchase order/notice to proceed received: \_\_\_\_\_
2. Contract Amount: \_\_\_\_\_
3. Total Amount of Alternates Accepted: \_\_\_\_\_
4. Proposed start/mobilization date : \_\_\_\_\_
5. Preconstruction Submittals Received: Check one Y \_\_\_\_\_ N \_\_\_\_\_
6. Bonding & Insurance Requirements Received: Check one Y \_\_\_\_\_ N \_\_\_\_\_
7. Completion date: \_\_\_\_\_
8. Delays and time extensions: The Contractor is responsible for the completion of project work within the time designated above and in the construction schedule. Justified change orders may qualify a delay and require a time extension which must be discussed and approved by the JJC CM. Failure to complete the project on time will result in a negative evaluation of Contractor performance on the JJC project close-out documents.
9. All shop drawings will be submitted to the JJC CM or A/E when required. Material samples shall be submitted for approval when required.
10. The JJC CM and/or the A/E will provide a list of punch list items. The final punch list shall be completed within 2 weeks upon substantial completion. 10% of the contract amount will be withheld until all punch list items are completed.
11. Construction status meetings between the Contractor and JJC CM shall be held on a weekly basis in the JJC CM's office. At the JJC CM's discretion, this weekly meeting may be held via conference telephone call as the project dictates.
12. As-built drawings shall be maintained and kept on-site daily. Final as-built drawings are required to be turned over to the JJC CM at project completion. When AutoCAD drawings are available from the A/E, the Contractor will revise the drawings to reflect as-built conditions. Final payment will not be processed until all as-built drawings are received.

#### B. Coordination of Work:

1. The Contractor is responsible for coordination of all elements of the work and every aspect of the coordination of his subcontractors work.
2. The Contractor is required to have a competent construction supervisor in charge of the work at all times. Construction supervisor may be a working foreman. It is required that the contractor have their own supervisor on site anytime they have a subcontractor on site.
3. When the shut down of utilities is required, the Contractor shall coordinate with the JJC CM to schedule the shut down process. Allow a minimum of 5 days notice

### Preconstruction Conference Checklist

Revision-F June 20, 2018

to allow for a shut down. Unless otherwise stated during the bidding process, a utility shut down will be required between the hours of 10:00 p.m. to 6:00 a.m.

4. The contractor is to consider any loud construction noise that may be disruptive to classes, faculty, students and staff (including but not limited to loud demolition, hammer drilling, concrete cutting/drilling, rock breaking, shooting of metal stud track into floors and ceilings, etc.). Such work shall be performed during the maintenance hours of 10:00 p.m. to 6:00 a.m.
5. The contractor will be responsible for providing and maintaining portable toilet facilities when the scope of work is an outdoor project. Location of the portable toilet(s) shall be coordinated with JJC.
6. Any project requiring excavation with remaining spoils shall be hauled off site as part of the contractor's base scope of work. Leaving/spreading spoils on site shall not be permitted.

C. Contractor Evaluation:

At the completion of the project, the JJC CM will complete a contractor evaluation. This evaluation is kept on file and is taken into consideration when considering the Contractor for future projects.

**13. Mobilization:** Prior to the Contractor mobilizing on site, the following requirements must be met and reviewed.

A. Pre-mobilization requirements:

1. Safety plan submitted and approved. Safety plan should address issues of excavation, crane lifts, hot work and other construction hazards that may apply to their work.
2. Schedule of Values and Construction Schedule submitted and approved.
3. Review Contractor's plan for mobilizing on site, including phasing, timing elements, crane operations, dumpster locations, gang box locations, deliveries, parking, storage of material, etc.
4. Contractor check-in with Facility Services. The Contractor's employees are required to obtain vehicle tags and I.D. badges. Any ticketing by Campus Police as a result of no vehicle tag will be the responsibility of the Contractor.

## Preconstruction Conference Checklist

Revision-F June 20, 2018

**14. Maintenance, Housekeeping and Clean-up:** The Contractor is primarily responsible for housekeeping in its respective work areas, and for work performed by its employees and subcontractors. This means the Contractor's work area is required to be maintained in an orderly, safe and productive condition at all times.

- A. Accumulation of combustibles, flammable liquids, chemical products, tools not in use, trash and/or refuse is not acceptable and will not be allowed.
- B. Parking, staging and storage of materials and equipment shall be confined to designated areas only.
- C. When a Contractor's work material may be dislodged by wind and could create a hazard when left in an open area, it shall be secured by the Contractor.
- D. The Contractor will police its work area(s) at the end of the shift and leave the area in a condition that is acceptable to the JJC CM.
- E. In the event that housekeeping in a Contractor's work area is found to be in an unacceptable condition by the JJC CM, the CM will give notice once verbally to the Contractor's on-site supervisor or foreman. If the deficiency is not corrected in a timely manner (and no later than the end of the day's work shift), the JJC Facility Services Department may make provisions for clean-up (which may or may not be done by outside services), and fully back charged to the Contractor. The Contractor will be liable for all costs associated with clean-up at a minimum rate of \$125/man hour plus materials.
- F. The Contractor shall provide and install safety fencing or barricades around areas requiring protecting (including but not limited to trees, plantings, etc.). This includes installing cyclone fencing for outdoor projects to prevent anyone from entering the construction zone.
- G. The Contractor will be responsible for daily cleaning of mud off roadways where required, or caused by this Contractor.
- H. The Contractor will provide tree protection and install silt fencing when working in areas that such protection or erosion control is required.
- I. The Contractor will provide berms around storm drains to prevent mud run-off from entering the lake.

## **Preconstruction Conference Checklist**

Revision-F June 20, 2018

- J. The contractor shall provide floor protection where necessary when the potential of damage to flooring may occur as a result of this contractors work. Contractor is to determine the necessary means, material and extent of floor protection required. Contractor should also photograph and document existing floor conditions prior to any work.
- K. Any landscape/lawn areas disturbed or damaged (inclusive of ruts, damaged trees, bushes, grass/turf, etc) as a result of this contractors work shall be repaired and/or replaced to original condition. Contractor shall take necessary means to protect such areas whenever possible.
- L. Where necessary, this contractor shall provide dust protection in all areas that may be impacted by their work. Means and methods of dust protection is to be determined by this contractor. Contractor will be fully responsible for cleaning all dust in any and all areas impacted by this project.

### **15. Conduct and Behavior:**

The Contractor's employees and representatives must take into consideration the environment around them when holding conversations with fellow associates as well as JJC staff as to not interrupt classes that may be in session, or students in concourses that may be studying. Profanity/foul language, derogatory remarks or harassment of faculty, staff and/or students will not be tolerated and will be an immediate means for the employee dismissal from the project by JJC.

### **16. Progress Payments/Invoicing and Change Orders:**

- A. A "pencil" copy of progress invoicing shall be submitted to the JJC CM & the A/E by the 1st of every month for review and approval. Final invoicing shall be in by the second week of the month for processing and board approval. No invoice will be processed without lien waiver(s) and certified payroll.
- B. Any extra work done by the Contractor will be considered performed at no extra cost to JJC unless a written JJC change order form has been fully executed and signed by the Director of Business and Auxiliary Services. A contractor shall not be entitled to any compensation for extra work/material based on verbal conversations (the contractor is considered proceeding with extra work at their own risk without a fully executed JJC change order form). It is the contractor's responsibility to obtain a fully executed change order form from JJC. A change order, or a combination of multiple change orders may not exceed 10% of the original contract without JJC seeking approval from the Board of Trustees.



**Preconstruction Conference Checklist**

Revision-F June 20, 2018

**17. Miscellaneous:**

- A. Soliciting or canvassing and posting or distributing printed material (except as permitted by law) is prohibited.
- B. Smoking and chewing tobacco is strictly prohibited on JJC property.
- C. Drinking, using, possessing or being under the influence of alcohol or controlled substances are prohibited, and a cause for immediate dismissal.
- D. No radios, CD Players or MP3 players shall be used during normal working hours.
- E. The Contractor shall perform his/her work in accordance to no less than the minimum requirements as established by the Occupational Safety and Health Association. Personal Protection equipment shall be provided by the Contractor and worn at all times.
- F. The Contractor will be responsible for securing materials and tools and shall be solely responsible for any such theft or damage.

By signing below, the Contractor certifies that he, his employees, subcontractors, or assigns will abide to this Preconstruction Conference Checklist during the course of the project. This document shall be attached and included as part of the contract for this project.

Contractor: \_\_\_\_\_  
Print name: \_\_\_\_\_  
Sign name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date signed: \_\_\_\_\_

JJC CM: \_\_\_\_\_  
Sign name: \_\_\_\_\_  
Date signed: \_\_\_\_\_

August 2008

# **Safety Requirements for Contractors and Subcontractors**

Environmental Health and Safety  
Facility Service Department  
(815) 280-2384

Environmental Health and Safety

---

# **Safety Requirements for Contractors And Subcontractors**

Environmental Health and Safety

Facility Services Department

1215 Houbolt Rd.

Joliet, IL 60431

Phone: (815) 280-2384 Fax (815) 280-6673

http: // [www.jjc.edu/ehs](http://www.jjc.edu/ehs)

## Table of Contents

<b>INTRODUCTION .....</b>	<b>1</b>
EHS Information .....	1
Purpose .....	1
Application .....	1
Scope .....	1
<b>GENERAL REQUIREMENTS .....</b>	<b>2</b>
Contractual Obligations .....	2
Submittals .....	2
Control of Fugitive Emissions.....	3
Accidental Spills and Releases .....	3
Emergency Phone Numbers .....	3
<b>SPECIFIC PROGRAM REQUIREMENTS.....</b>	<b>5</b>
<b>Non Capital Projects.....</b>	<b>5</b>
Asbestos and Suspect Asbestos Containing Building Materials .....	6
Lead-containing Building Materials .....	6
Confined Spaces.....	7
Hazard Communication .....	7
Electrical Safety and Lockout/Tagout .....	9
Trenching and Excavations .....	9
Hot Work.....	10
<b>Capital Projects .....</b>	<b>10</b>
Asbestos and Suspect Asbestos Containing Building Materials .....	10
Lead-containing Building Materials .....	10
Confined Spaces.....	10
Hazard Communication .....	11
Electrical Safety and Lockout/Tagout .....	12
Trenching and Excavations .....	13
Hot Work.....	13
<b>Agencies/Firms With No Contractual Relationship WITH JJC .....</b>	<b>13</b>
<b>WORK SITE INSPECTIONS.....</b>	<b>14</b>
Non-Capital Projects .....	14
Capital Projects .....	14
Agencies/Firms Where No Formal Contractual Relationship Exists .....	15
<b>DEFINITIONS .....</b>	<b>16</b>

*This page left intentionally blank.*

# Introduction

## EHS Information

The mission of Environmental Health and Safety (EHS) is to:

- Work toward providing a safe and healthful living, learning, and working environment for every member of the greater college community by assuring safe work practices through educating, training, and assisting individuals and departments;
- Help individuals and departments achieve compliance with all health and safety state and federal regulations and college policies as economically as possible and
- Act as liaison with external regulatory agencies, and to monitor college compliance with mandatory health and safety standards whenever necessary.

## Purpose

Joliet Junior College developed *Safety Requirements for Contractors and Subcontractors* to assure the safety of college employees and the public who may be in proximity to renovation, demolition, installation, or maintenance operations performed by Contractors or Subcontractors. Every Contractor is expected to take steps as necessary to protect the safety and health of college employees, students, and visitors during the performance of their work. Each Contractor that coordinates the work of Subcontractors shall assure that they abide by the requirements outlined herein.

## Application

Each department that coordinates or uses the services of a Contractor to perform maintenance, repair, installation, renovation or construction-related operations is expected to designate one or more persons to coordinate this program within his or her department. These coordinators are expected to assure that the Contractor is:

- Informed of the presence of hazards in or near the work area.
- Informed about JJC's requirements related to lead, confined space entry, lockout/tagout, hot work, and excavation operations.
- Aware of the colleges' expectations regarding safety compliance and the control of worksite hazards.

A representative from EHS will serve as the coordinator for the purposes of this program on capital renovation and construction projects.

## Scope

This program applies to all JJC properties, and to all work performed by Contractors and Subcontractors in or on property owned, leased or occupied by JJC or employees of JJC.

# **General Requirements**

## **Contractual Obligations**

A copy of this document shall be made available upon request to prospective bidders/offerors at the pre-bid/pre-proposal conference for the work. This document shall be either included with, or referenced in, the contract documents.

Contractors performing building, facilities or equipment-related construction, repair, installation, renovation or maintenance activities shall attend a safety orientation as follows:

- On capital projects, this orientation will be conducted during the pre-construction conference or as determined by the Project Manager.
- For non-capital construction/renovation work, the Project Coordinator shall arrange the safety orientation with EHS and the Contractor prior to the start of work by contacting EHS at (815) 280-2384. Contractors retained on a term contract need only attend one safety orientation held prior to the award of the first project under that contract.

The Contractor shall provide the Project Manager/Coordinator with emergency contact phone number(s), usable 24 hours a day, for the Contractor's representative. These phone numbers shall be copied to EHS and the JJC Police Department prior to the work.

The Contractor bears sole responsibility for the safety of his or her employees. The Contractor is expected to take all steps necessary to establish, administer, and enforce safety rules that meet the regulatory requirements of the Illinois Department of Labor (IDOL) and the Occupational Safety and Health Administration (OSHA). These regulations include, but are not limited to:

- Title 29 of the Code of Federal Regulations (CFR) Parts 1910, Occupational Safety and Health Administration (OSHA) Standards for General Industry,
- Title 29 of the Code of Federal Regulations (CFR) Parts 1926, Occupational Safety and Health Administration (OSHA) Standards for the Construction Industry.

The Contractor bears sole responsibility for communication of safety-related information and requirements to his or her Subcontractors. Contractors shall assure that their Subcontractors comply with the requirements outlined herein.

## **Submittals**

Submittals, where required from the Contractor by this document, shall be made in writing, directly to the Project Manager/Coordinator and copied to EHS. Submittals shall be made sufficiently in advance to avoid delay of the project. Where review, approval, or coordination of submittals is required, submittals shall be made at least ten (10) working days prior to the start of the project unless prior arrangements have been made. Post-job submittals, where required

as outlined in this document, shall be made no later than fifteen (15) working days after completion of the project or as specified herein.

## Control of Fugitive Emissions

The Contractor shall take all reasonable precautions necessary to control fugitive emissions from the job site. Fugitive emissions include, but are not limited to: nuisance dust, chemical odors/vapors/gases, hazardous materials (such as lead dust or asbestos), and noise.

Where the product(s) or material(s) to be used by the Contractor has a permissible exposure limit (PEL) established by OSHA or IDOL and where college employees or the public may be exposed to the product or material, the Contractor shall take all reasonable steps to maintain exposures below the PEL where an exposure condition during use exceeding the PEL could reasonably be anticipated. In such instances, the Contractor shall monitor, or shall contract to have monitored, work area exposure conditions. Monitoring shall occur, at a minimum, during the start of work and whenever there is a change in procedure, process, or chemical or material used. If it is deemed not practicable to maintain exposures below the PEL, the Contractor shall restrict access to all areas where exposures exceed the PEL to authorize personnel only.

## Accidental Spills and Releases

In the event of an accidental release or spill of chemicals or other hazardous materials the Contractor shall:

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees,
- Notify the fire department, campus police, or other entities as needed or required,
- Contact EHS, and
- Contact the Project Manager/Coordinator.

EHS emergency response personnel may be reached after normal business hours by contacting the Campus Police Department at (815) 280-2234 or 2811 from a house phone.

The following phone numbers may be used in the event of an emergency during normal working hours:

	Outside	On-Campus
Joliet Fire Department and Ambulance		911
JJC Campus Police	(815) 280-2911	Extension 2911
North Campus-Romeoville Fire/Ambulance	911	911
Morris Fire/Ambulance	911	911
Environmental, Health and Safety	(815) 280-2384	Extension 2384
East Joliet Fire/Ambulance	(815) 723-1504	911
Facility Services	(815) 280-2332	Extension 2332



All college costs associated with responding to or remediation of a chemical or hazardous material spill or release may be assessed by the Contractor.

## **General Work Requirements**

The Contractor shall abide by the requirements of any sign posted in a building that requires the use of specific personal protective equipment, that restricts access to qualified or authorized persons only, or that establishes other requirements for entry.

The Contractor shall not conduct work or operations that obstruct exits or the means of egress from an occupied building without the prior approval of EHS and the Project Manager/Coordinator. Equipment and materials are not to be stored in exits or exit stairwells at any time, and may not be stored in the means of egress without prior approval. Fire rated doors shall not be chocked or blocked open except temporarily and event of a building fire alarm or similar emergency.

Compressed gases shall be stored, used and transported in accordance of the NFPA, OSHA and DOT. New compressed gas installations shall comply with these agency requirements.

All tents, stages and temporary structures shall comply with the requirements of the NFPA.

Contractors shall not use College equipment or vehicles nor shall the Contractor allow college employees to use the Contractors' equipment or vehicles without the approval of Risk Management and EHS. If an employee of a Contractor needs to use specialized equipment owned by JJC, such as powered industrial trucks, the Contractor must provide suitable documentation that the employee has been trained and certified (if required) to use such equipment.

# Specific Program Requirements

## Non-capital Projects

### Asbestos and Suspect Asbestos Containing Building Materials

It is the responsibility of the Contractor to provide his or her own asbestos awareness program which shall include, but is not limited to, the information contained in this section and the OSHA asbestos-related regulations (29 CFR 1926.1101). Verification that this training has been conducted shall be supplied to the college upon request.

Contractors employed by the college to perform building or facilities-related maintenance, repair or renovation shall be informed by the Project Coordinator of the location of suspect and known asbestos-containing materials (ACM) in the work area(s) to which they are assigned by one of the following means:

- The Project Coordinator shall provide the Contractor with a copy of a completed "Work Order Review Form" or an asbestos inspection report specific to their work and the materials that are to be distributed, or
- Where the construction documents for a project clearly detail asbestos material locations within the work area, these documents may serve in lieu of the "Work Order Review Form" or inspection report.

The "Work Order Review Form" is used internally at the College to document that the proposed scope of work has been reviewed for the presence of suspect or known ACM. The "Work Order Review Form" will be completed by either EHS or the individual within the Department approved by EHS to perform this review. Questions related to this issue should be addressed to EHS at (815) 280-2384. An asbestos inspection report may, at the discretion of the Contracting Department, be prepared by an asbestos consultant licensed in Illinois to perform the duties of Asbestos Inspector and Asbestos Management Planner, this report shall be copied to EHS upon receipt.

Contractors shall, under no circumstances, damage or disturb suspect or known *friable* ACM unless they are a licensed Illinois Asbestos Abatement Contractor and have been specifically employed to perform asbestos repair or removal. Contractors may remove *non-friable* ACM, or perform work that will potentially disturb non-friable ACM, only with prior approval by EHS of the Contractors proposed work methods, employee training and waste disposal site. If suspect asbestos materials are discovered during the course of the work, the Contractor shall stop work immediately and notify the Project Coordinator or other person as indicated in the contract documents.

The Contractor shall not proceed with any change in work which requires a material to be disturbed that the "Work Order Review Form", asbestos inspection report, or construction documents show has not previously been tested (e.g., "suspect" ACM). If a change in the scope of work becomes necessary, the revised scope of work shall be reviewed and pre-approved by EHS or other authorized person.

Asbestos materials may not be used or installed in College facilities.

## Lead-Containing Building Materials

Contractors employed by the college to perform building or facilities-related maintenance, repair or renovation shall be informed by the Project Coordinator of the location of lead-containing building materials in the work area(s) to which they are assigned by one of the following means:

- The Project Coordinator shall provide the Contractor with a copy of the completed “Work Order Review Form” or a lead inspection report specific to their work and the materials that are to be disturbed, or
- Where the construction documents for a project clearly detail the location of lead-containing building materials within the work area, these documents may serve in lieu of the “Work Order Review Form” or inspection report.

The Project Coordinator may obtain information regarding the location of lead materials within a work site from the Department Safety Representative or by contacting EHS at (815) 280-2384. A lead inspection report may, at the discretion of the Contracting Department, be prepared by a lead consultant licensed in Illinois to perform the duties of Lead Inspector, this report shall be copied to EHS upon receipt. Contractors that will disturb lead-containing building materials during the course of work shall take all necessary precautions to protect college employees and the public from exposure to lead dust or contamination. These measures shall conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926.62 and applicable local, state and federal regulation. The Contractor shall submit a copy of his or her lead compliance program, as required by 29 CFR 1926.62(e), with required supporting documentation for prior review and approval to EHS. This submittal shall be made sufficiently in advance of construction to avoid delay of the project. Where the Contractor is engaged in work in child-occupied facilities (as defined by 40 CFR Part 745), such work shall be performed in accordance with 40 CFR Part 745, and clearance testing shall be performed by EHS or a licensed consultant at the conclusion of the project in accordance with the requirements of this regulation.

A copy of the analytical report(s) for any personal air samples taken during the course of the work shall be provided to EHS.

The Contractor shall not proceed with any change in work that requires a material be disturbed that the “Work Order Review Form”, lead inspection report, or construction documents shows has not previously been tested unless pre-approved work procedure will be followed.

On projects where lead-containing materials will be disturbed or removed during the course of work, the Project Designer shall contact EHS at (815) 280-2384 to determine disposal requirements. If the lead-containing materials will constitute a hazardous waste, disposal of these materials shall be coordinated with EHS. The disposal requirements must be established during the design of the project.

## Confined Spaces

When the College arranges to have a Contractor perform work that involves entry into a confined space, the Project Coordinator shall:

- Inform the Contractor that the workplace contains confined spaces and that the entry is allowed only through compliance with a confined space program meeting the requirements set forth by the DOL and the OSHA.
- Apprise the Contractor of the elements, including the hazard(s) identified and the college's experience with the space.
- Apprise the Contractor of any precautions or procedures that the college has implemented for the protection of college employees in or near confined spaces where contractor personnel will be working.
- Coordinate entry operations with the Contractor when both College personnel and contractor personnel will be working in or near confined spaces.
- Debrief the Contractor at the conclusion of the entry operations regarding the confined space program followed and any hazards confronted or created in confined spaces during entry operations
- Provide a copy of JJC Confined Space Entry Program to the Contractor upon request.

Information on JJC Confined Space Program and information on specific confined spaces on JJC Properties may be obtained by contacting EHS at (815) 280-2384.

Each Contractor who is retained to perform work that will require permit space entry operations shall:

- Coordinate entry operations with the Project Coordinator when both the Contractor and College personnel will be working in or near permit spaces;
- Inform the Project Coordinator in writing of the permit space program the Contractor will follow;
- Inform the Project Coordinator of any hazards confronted or created in permit spaces during entry operations;
- Provide a copy of the Contractor's Confined Space Program to the College upon request;
- Inform the Project Coordinator in writing of the rescue services/team they will be using during permit entry; and
- Provide a copy of the canceled permit(s) to the Project Coordinator and EHS at the conclusion of entry operation.

## Confined Spaces

The Contractor shall maintain, on-site, Material Safety Data Sheets (MSDS's) for all chemicals used or stored at his or her job site as required by IDOL/OSHA regulations and the contract documents. The Contractor shall provide copies of MSDS's to the Project Coordinator and EHS upon request.

Chemicals are used extensively on the JJC campus. Chemicals use and/or storage is routine in, but not limited to, the following areas or locations:

- Laboratories
- Fume hood exhausts on the roofs of laboratory buildings. (In general, signs have been posted on the roof access hatch or door restricting access to the roofs of buildings where fume hood exhausts are located).
- Chemical stock rooms.
- Agricultural Shops, Areas, and Chemical Storage.
- Chemical waste accumulation areas.
- Facility Services and Kitchen, paint and chemical storage areas.
- Custodial Closets.

The Project Coordinator shall inform the Contractor of the following:

- Known hazards and any required safety procedures that must be followed in the Contractor's work area.
- Methods for obtaining access to Material Safety Data Sheets (MSDS) for hazardous chemicals present in the Contractor's work area.
- Information about the labeling system used in the work area (NFPA 701).
- Emergency procedures that the Contractor is to follow in the event of accidental exposures or releases of hazardous chemicals.

If the work will be conducted on the roof of a building where fume hood exhausts are located, the Project Coordinator shall coordinate access with Facility Services, the departments within the building, and EHS, as necessary to ensure that:

- Fume hoods within, or adjacent to, the work area are shut down,
- No experiments are in-progress that would generate toxic or hazardous airborne contaminants;
- All chemicals stored within the fume hoods are capped or otherwise sealed; and
- The Contractor is informed of any special precautions that must be taken to prevent employee exposure to hazardous chemicals.

A minimum of seven days advance notice is generally required to coordinate fume hood shutdowns. In emergency situations (for example, when the Contractor's personnel must conduct work on, or in proximity to, active fume hood exhausts), the Contractor may access these roof areas if appropriate personal protective equipment is used. The Contractor shall be

informed in writing by the Project Coordinator of the precautions that should be taken to protect his or employees while conducting such work. This information may be obtained by contacting EHS at (815) 280-2384.

Given the number of chemicals used, and changing work within chemical laboratories, it is impractical for the college to provide the Contractor with a MSDS for any chemical potentially in-use within any given laboratory. However, MSDS's are required to be maintained and to be accessible to employees in each work area, and MSDS's for all chemicals may be obtained from Campus Police or EHS.

The Contractor shall assume that all hazardous chemicals or materials are handled and disposed of in accordance with federal and state regulations. Where a hazardous waste disposal manifest is required by these regulations, the Contractor shall contact EHS at (815) 280-2384 to assure that manifesting, storage, and the proposed disposal method and disposal site meet college and EPA requirements. The Contractor shall supply a copy of the completed waste manifest to EHS within 24 hours of receipt.

Where the Contractor has secured air samples documenting employee exposure to airborne chemical or particulate hazards during the course of his or her work, a copy of all air sample results shall be provided to EHS within 24-hours of receipt by the Contractor.

## **Electrical Safety and Lockout/Tagout**

If College employees will be present on the Contractors worksite, and employees of either JJC and/or the Contractor will be performing work that requires the use of lockout and/or tagout devices, the following requirements shall apply:

- The Project Coordinator and Contractor shall inform each other of their respective lockout/tagout procedures.
- The Project Coordinator and Contractor shall each inform their personnel regarding the energy control procedures that are to be followed on the project site.
- A copy of JJC 's Electrical Safety and Lockout/Tagout programs shall be provided to the Contractor upon request.
- A copy of the Contractors electrical safety and lockout/tagout program shall be made available to the college upon request.

## **Trenching and Excavations**

The Contractor shall coordinate trenching and excavation work with the Project Coordinator, Facility Services, and JULIE to assure the coordination of work and shutdown of utilities if necessary.

The design of sloping and benching systems, support systems, shield systems or other protective systems shall confirm, at a minimum, to the OSHA requirements detailed in 29 CFR 1926 Subpart P requirements.

Trenching or excavations below the level of the base or footing of any foundation or retaining wall, or adjacent to any utility, sidewalk or roadway, will not be permitted unless:

- A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure, or
- The excavation is in stable rock, or
- A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees or the structure.

This determination is the responsibility of the Contractor except as permitted, required or otherwise allowed by the project specifications or drawings

The Contractor shall notify the Project Coordinator of the name of the individual that is to serve as the Contractor's competent person as defined by this program and the OSHA regulations. The Contractor's designated competent person shall maintain a written log of the daily inspections made of excavations, adjacent areas, and protective systems. A copy of this written log shall be made available to the college upon request.

Where the design of a sloping and benching system, support system, shield systems or other protective systems requires review and approval by a registered professional engineer, the Contractor shall submit a copy of the completed review to the Project Coordinator and EHS prior to the start of work.

## **Hot Work**

Contractors performing hot work shall maintain a Hot Work Permit Program and employee-training program that meets the OSHA requirements found in 29 CFR 1926.352 and ANSI Z49.1-88 and NFPA 51B. Examples of hot work include, but are not limited to, use of open flames, compressed gasses or supplied fuel burning, brazing, cutting, grinding, soldering, thawing, pipe, torch applied roofing, and welding.

A copy of the canceled permit(s) shall be provided to the Project Coordinator and EHS after completion of the work.

## **Capital Projects**

### **Asbestos and Suspect Asbestos Containing Building Materials**

It is the responsibility of the Contractor to provide his or her own asbestos awareness program which shall include, but is not limited to, the information contained in this section and the OSHA asbestos-related regulations (29 CFR 1926.1101). Verification that this training has been conducted shall be supplied to the Architect/Engineer of record for the project and/or the college upon request.

The location of asbestos materials, where present within the jobsite, will be detailed in the construction documents for that project.

Asbestos materials may not be used or installed in College facilities.

## **Lead-containing Building Materials**

The location of lead materials, where present, will be detailed in the construction documents for that project.

Contractors that will disturb lead-containing building materials during the course of work shall take all necessary precautions to protect college employees and the public from exposure to lead dust or contamination. These measures shall conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926.62 and applicable local, state and federal regulations related to health, safety, transportation and disposal.

## **Confined Spaces**

Where the work of the Contractor involves entry into confined spaces, the Contractor shall perform such entry in accordance with the OSHA (e.g., 29 CFR 1926.20 and/or 1910.146) requirements. Where the work involves an existing college permit-required confined space, the Project Manager and/or Field Engineer shall coordinate with EHS to assure that:

- The Contractor is apprised of the elements, including the hazard(s) identified and the college's experience with the space, that make it a permit-required confined space.
- The Contractor is apprised of any precautions or procedures that the college has implemented for the protection of college employees in or near permit spaces where contractor personnel will be working.
- The Contractor is debriefed at the conclusion of the entry operations regarding the permit space program followed and any hazards confronted or created in permit spaces during entry operations.

The Contractor shall provide at least 24-hours advance notice to the Field Engineer when both college personnel and the Contractor's personnel will be working in or near permit-required confined spaces. The Field Engineer shall notify EHS at (815) 280-2384, and EHS shall assure that the college personnel have been informed of the precautions and procedures to be followed during entry operations. Under these circumstances the Contractor shall:

- Inform EHS of the permit space procedures the Contractor will follow;
- Inform EHS of any hazards confronted or created in permit spaces during entry operations.

## **Hazard Communication**



## SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

The Contractor shall maintain, on-site, Material Safety Data Sheets (MSDS's) for all chemicals used or stored at the job site as required by IDOL/OSHA regulations and the contract documents.

Chemicals are used extensively on the JJC campus. Chemical use is routine in, but not limited to, the following areas or locations:

- Laboratories.
- Fume hood exhausts on the roofs of laboratory buildings. (In general, signs have been posted on the roof access hatch or door restricting access to the roofs of buildings where fume-hood exhausts are located).
- Chemical stock rooms.
- Agricultural shop, areas, and chemical storage.
- Chemical waste accumulation areas.
- Facility Services and Residential and Dining Programs paint and chemical storage areas.
- Custodial closets.

Where necessitated by the work, the Field Engineer and/or Project Manager shall coordinate with EHS to assure that the Contractor is informed of the following:

- Known hazards and any required safety procedures that must be followed in the Contractor's work area.
- Methods for obtaining access to Material Safety Data Sheets (MSDS) for hazardous chemicals present in the Contractor's work area.
- Information about the labeling system used in the work area (NFPA 701).
- Emergency procedures that the Contractor is to follow in the event of accidental exposures or releases of hazardous chemicals.

If work will be conducted on the roof of a building, where fume hood exhausts are located, the Field Engineer shall coordinate access with Facility Services, the departments within the building and EHS as necessary to ensure that:

- Fume hoods within, or adjacent to, the work area are shut down,
- No experiments are in-progress that would generate toxic or hazardous airborne contaminants;
- All chemicals stored within the fume hoods are capped or otherwise sealed; and,
- The Contractor is informed of any special precautions that must be taken to prevent employee exposure to hazardous chemicals.

A minimum of seven days advance notice is generally required to coordinate fume hood shutdowns. In emergency situations (for example, when the Contractor's personnel must conduct work on, or in proximity to, active fume hood exhausts), the Contractor may access these roof areas if appropriate personal protective equipment is used. The Contractor shall be informed in writing by EHS of the precautions that should be taken to protect his or her

employees while conducting such work. The Field Engineer may request this information by contacting EHS at (815) 280-2384.

Given the number of chemicals used, and changing work within chemical laboratories, it is impractical for the college to provide the Contractor with a MSDS for any chemical potentially in-use within any given laboratory. However, MSDS's are required to be maintained and to be accessible to employees in each work area, and MSDS's for all chemicals may be obtained from EHS.

The Contractor shall assure that all hazardous chemicals or materials are handled and disposed of in accordance with federal and state regulations and the contract requirements.

## **Electrical Safety and Lockout/Tagout**

If college employees will be present on the Contractors worksite, and employees of either JJC and/or the Contractor will be performing work that requires the use of lockout and/or tagout devices, the following requirements shall apply:

- The EHS representative and the Contractor shall inform each other of their respective lockout/tagout procedures.
- The Project Manager and/or Field Engineer will coordinate with the EHS representative to assure that college personnel understand the energy control procedures that are to be followed in the project site.
- The Contractor shall assure that his/her personnel understand the energy control procedures that are to be followed on the project site.
- A copy of JJC's Electrical Safety and Lockout/Tagout programs shall be provided to the Contractor upon request.
- A copy of the Contractors electrical safety and lockout/tagout procedures shall be made available to the college upon request.

## **Trenching and Excavations**

The Contractor shall coordinate trenching and excavation work with the Project Manager and/or Field Engineer and JULIE to assure the coordination of work and shutdown of utilities as necessary.

The design of sloping and benching systems, support systems, shield systems or other protective systems shall conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926 Subpart P, and the requirements of the contract.

## **Hot Work**

Contractors performing hot work shall maintain a Hot Work Permit Program and employee-training program that meets the OSHA requirements found in 29 CFR 1926.352 and ANSI Z49.1-88 and NFPA 51B. Examples of hot work include, but are not limited to, use of open

flames, compressed gases or supplied fuel burning, brazing, cutting, grinding, soldering, thawing pipe, torch applied roofing, and welding.

## **Agencies/Firms With No Contractual Relationship with JJC**

All agencies/firms conducting work on JJC property shall comply with the requirements of NFPA, EPA, DOL, OSHA and this program, even where no formal contractual relationship exists between JJC and the agency/firm. The agency/firm shall maintain appropriate insurance, including general liability, auto liability, and workers compensation insurance. Verification of insurance shall be coordinated with JJC's Director of Risk Management, who may be reached at (815) 280-2325, prior to the start of work. Such agencies/firms shall not, without prior written approval of EHS:

- Use a product(s) or material(s) that has a permissible exposure limit (PEL) established by OSHA.
- Perform work on JJC property that may damage or disturb known or suspect asbestos materials,
- Perform work on JJC property that may damage or disturb known or suspect lead-containing materials,
- Perform work on JJC property that involves entry into a permit-required confined space,
- Perform work on any electrical system or utility,
- Construct nor enter excavations, nor
- Perform hot work.

## **Work Site Inspections**

### **Non-capital Projects**

Work site inspections may be conducted by EHS or other designated college personnel. These inspections are conducted solely for the benefit of the college, and shall not relieve the contractor of responsibility for enforcement of, and compliance with, OSHA, NFPA or EPA regulations.

In the event that work site conditions exist that potentially impact the safety of college employees, students, or the public, the college inspector shall issue a verbal or written warning to the Contractor and shall notify the Project Coordinator. If the unsafe conditions cannot be immediately corrected and represent a danger or have a potential to harm college employees, students or the public, then the college inspector will:

- Detail the NFPA, EPA or OSHA violations that were noted, and explain the potential impact upon college employees, students or the public,
- Require that the Project Coordinator have the Contractor either stop work or implement measures to isolate the hazardous condition until the unsafe condition can be mitigated,
- Issue a formal written report of the violation(s) to the Contractor. This report shall be copied to the Project Coordinator.

Reports of deficiencies may be factored into the evaluation of the contract by the college, and may be included in a vendor complaint file that is available for review by other state agencies. Repeat safety violations of a similar nature and/or a single serious willful safety violation by a Contractor may warrant review and termination of the contract.

## **Capital Projects**

Work site inspections may be conducted by EHS or other designated college representatives. Such inspections shall be coordinated with the Field Engineer and/or Project Manager. These inspections are conducted solely for the benefit of college personnel who may be working on the site and shall not relieve the contractor of responsibility for enforcement of, and compliance with NFPA, EPA, and OSHA regulations.

In the event that work site conditions exist that potentially impact the safety of college employees or the public, EHS shall notify the college Field Engineer and the Contractor of the hazard, and will assure that other college personnel present on-site are warned to avoid the area of the hazardous condition. The Contractor shall take prompt action to correct the hazardous condition. If the hazardous condition cannot be immediately corrected, the Contractor shall take effective steps to isolate the hazardous condition and/or shall stop work that is causing the hazardous condition until the hazard can be mitigated.

In the event that work site conditions exist that present an immediate safety hazard for the Contractors personnel, EHS may, as a courtesy, notify the Field Engineer and the Contractor of the hazardous condition. The Contractor shall take prompt action to correct the hazardous condition as required by the *General Conditions of the Construction Contract*.

## **Agencies/Firms Where No Formal Contractual Relationship Exists**

When hazardous condition are identified by EHS related to work performed by agencies/firms conducting work on JJC property where no formal contractual relationship exists between JJC and the agency/firm, the hazardous condition shall be immediately corrected. If the hazardous condition cannot be immediately corrected, the agency/firm shall stop work and shall take effective steps to isolate the hazardous condition from personnel and the public. Repeat safety violations of a similar nature or willful disregard for the NFPA, EPA or OSHA requirements or the requirements outlined in this program will result in immediate removal from JJC property.

## Definitions

**Capital Project:** A capital project is one whose total project cost exceeds \$500,000.

**Competent Person:** As related to excavation, trenching or shoring work, the Contractor's "competent person" means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Confined Space:** A confined space is a space that is large enough for a person to enter, that has limited means for entry or exit, and that is not designed for continuous occupancy. Example include tanks, silos, storage bins or hopper, utility vaults and pits.

**Contracting Department:** The Department at the college that has contracted for work to be performed by a Contractor. In regards to agencies/firms conducting work on JJC property, where no formal contractual relationship exists between JJC and the agency/firm, the department that is coordinating or approving the work of the agency/firm is the Contracting Department.

**Contractor:** An entity or agency employed by the college to perform the installation or maintenance of equipment or the renovation or construction of a building, room or space on college property, or that provides services to the college on college property including, but not limited to, vending, supplies, erection of tents and other services.

**Field Engineer:** The representative from JJC's Facility Services department that oversees capital construction and/or renovation activities.

**Friable Asbestos:** An asbestos material that is capable of being reduced to powder by hand pressure when dry, or a nonfriable asbestos material that is subject to grinding, sanding, cutting or abrading or that is otherwise rendered by mechanical means.

**Lockout/Tagout:** A program used to ensure that employees are protected from sources of potentially hazardous energy. The program requires that hazardous energy sources be identified and locked and/or tagged-out before work is done on the system(s).

**Permit-required confined space:** A permit-required confined space is a confined space that contains potential or known safety hazards that must be dealt with prior to or during entry to assure the safety of those employees performing the work.

**Project Coordinator:** The individual(s) within a Department that has been assigned duties related to oversight or coordination of work performed by a Contractor as defined in this program.

**Project Manager:** The representative from JJC's Facility Services department that coordinates the work of the Field Engineer and the Architect/Engineer related to capital construction and/or renovation projects.

***Serious, willful safety violation:*** “Serious, willful safety violation” is defined, for the purposes of this program, as a work activity with a substantial probability that death or serious physical harm could result and where the hazard was known or should have been known, but where the work activity was continued regardless of the existence of the safety hazard.

## LABOR MANAGEMENT PROJECT AGREEMENT

This Agreement is entered into this \_\_\_\_ day of \_\_\_\_, 20\_\_ by and between Joliet Junior College, Illinois Community College District 525 of Will, Grundy, Kendall, LaSalle, Kankakee, Livingston, and Cook, Illinois, (hereinafter called the "Owner"); and \_\_\_\_\_ (hereinafter called the "Project Contractor"); and the \_\_\_\_\_ Building Trades Council (hereinafter called the "Union"), acting in their own behalf and on behalf of their respective affiliates and members; and the THREE RIVERS CONSTRUCTION ALLIANCE, acting on their own behalf and on the behalf of their respective affiliates and members, with respect to all construction projects at Joliet Junior College, which includes the Master Plan and Capital Improvement Plans thru August 2013, located in Will County, Illinois.

### WITNESSETH:

WHEREAS, to accomplish the goals of quality, cost effectiveness and timelessness requires that all participants exhibit a positive attitude intent on success; and

WHEREAS, there must exist amongst all parties a willingness to cooperate fully in devoting themselves to the goals of the Project; and

WHEREAS, this program has no room for adverse relationships, but only a true spirit of cooperation and commitment; and

WHEREAS, it is essential that the work required to construct this Project be accomplished in an efficient and economical manner so as to provide productivity, the highest levels of quality and the total elimination of delays thereby fostering new plateaus in labor/management cooperation; and

WHEREAS, Joliet Junior College, Illinois Community College District 525 of Will, Grundy, Kendall, LaSalle, Kankakee, Livingston, and Cook, Illinois, (hereinafter referred to as

the "Owner"), its general Contractor(s), its subcontractor(s) of whatever tier, the local Building Trades Council, the THREE RIVERS CONSTRUCTION ALLIANCE dedicate themselves to the goal that together, in full cooperation, local labor, and management will produce a project of excellent quality, as economically as possible, in a safe environment, under favorable working conditions; and

WHEREAS, nothing contained herein shall prevent the Owner from considering bids for the Project so long as the General Contractor and its Subcontractors agree to abide by the terms and provisions of this Agreement.

NOW, THEREFORE, for and in consideration of the mutual covenants above-contained and other good and valuable consideration, as hereinafter set forth, the parties do hereby agree as follows:

#### SECTION 1. Introduction

It is understood by the parties to this Agreement that other contractors awarded construction work directly or indirectly by the Owner will execute this Agreement and become signatory contractors for the purpose of this work.

The intent of the parties to this Agreement is to establish labor and management cooperation between the Owner, Project Contractor, all Contractors and Subcontractors performing construction work in this Project site, and the appropriate Unions signatory to this Agreement for the express purpose of producing a quality project on schedule, and, as economically as possible, in a safe environment under favorable working conditions.

#### SECTION 2. Scope of the Agreement.

A. This Project Agreement shall apply and is limited to the recognized and accepted historical definition of new construction work under the direction of and performed by the



Contractor(s), of whatever tier, which may include the Project Contractor, who have contracts awarded for such work on the Project. Such work shall include site preparation work and dedicated off-site work.

It is agreed that the Project Contractor shall require all Contractors of whatever tier who have been awarded contracts for work covered by this Agreement, to accept and be bound by the terms and conditions of this Agreement by executing the Letter of Assent (Attachment A) prior to commencing work. The Project Contractor shall assure compliance with this Agreement by the Contractors. It is further agreed that, where there is a conflict, the terms and conditions of this Agreement shall supersede and override terms and conditions of any and all other national, area, or local collective bargaining agreements, except for all work performed under the NTL Articles of Agreement, and the National Stack/Chimney Agreement, the National Cooling Tower Agreement. All instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, and the National Agreement of the International Union of Elevator Constructors, with the exception of Section 4, 5 and 6 of this Agreement, which shall apply to such work.

B. Nothing contained herein shall be construed to prohibit, restrict or interfere with the performance of any other operation, work, or function which may occur at the Project site or be associated with the development of the Project.

C. This Agreement shall only be binding on the signatory parties hereto and shall not apply to their parents, affiliates or subsidiaries.

D. The Owner and/or the Project Contractor have the absolute right to select any qualified bidder for the award of contracts on this Project without reference to the existence or non-existence of any agreements between such bidder and any party to this Agreement;

provided, however, only that such bidder is willing, ready and able to become a party to and comply with this Agreement, should it be designated the successful bidder.

E. The provisions of this Agreement shall not apply to Owner, and nothing contained herein shall be construed to prohibit or restrict Owner or its employees from performing work not covered by this Agreement on the Project site. As areas and systems of the Project are inspected and construction tested by the Project Contractor or Contractors and accepted by the Owner, the Agreement will not have further force or effect on such items or areas, except when the Project Contractor or Contractors are directed by the Owner to engage in repairs, modifications, check-out, and warranty functions required by its contract with the Owner during the term of this Agreement.

F. It is understood that the Owner, at its sole option, may terminate, delay and/or suspend any or all portions of the Project at any time.

G. It is understood that the liability of any employer and the liability of the separate unions under this Agreement shall be several and not joint. The unions agree that this Agreement does not have the effect of creating any joint employer status between or among the Owner, Contractor(s) or any employer.

### SECTION 3. Labor-Management Cooperation Committee

The parties to this Agreement hereby reaffirm the necessity for joint cooperation and participation by Labor and Management in interpreting and analyzing the effectiveness of management's application of this Agreement as well as Labor's response and any other matter affecting quality, safety, working conditions and productivity. Therefore, to secure this end, it is hereby agreed that a "Labor-Management Cooperation Committee" will be established composed of three representatives from Labor and three representatives from Management; one

representative from labor and one from Management shall be Co-Chairpersons of this Committee.

The Labor-Management Cooperation Committee shall meet a minimum of once each month, at the job site, and shall discuss the following; reports concerning any violation, dispute, questions or interpretation of the application of practices arising out of this Agreement; safety; working conditions; absenteeism; labor turnover; availability of qualified journeymen; need for training; and any other matter affecting productivity and efficiency on this project.

In the event a dispute is not resolved by the Labor-Management Cooperation Committee, such matter shall then be settled as outlined by the grievance procedure and/or arbitration provisions contained in Section 6 or 7 of this Agreement. The Labor-Management Cooperation Committee shall have no authority to render a decision involving a jurisdictional dispute.

#### SECTION 4. Contractor's Commitment

A Work assignments will be made in accordance with area practice, consistent with the efficient and economical performance of the work.

B. Before performing the work at the job site, the Contractor or Subcontractors of whatever tier actually performing the work will become signatory to the appropriate collective bargaining agreement.

C. The Contractors and Subcontractors shall exercise their management rights. These rights shall include planning, directing, hiring, dismissal, lay-off, transferring, appointing foremen and general foremen and otherwise directing the work force.

D. The Project Contractor agrees that neither it nor any of its contractors or subcontractors will subcontract any work to be done on the Project except to a person, firm or corporation who is or agrees to become party to this Agreement. Any contractor or subcontractor

working on the Project shall, as a condition to working on said Project, become signatory to and perform all work under the terms of this Agreement.

#### SECTION 5. Union (Craftsman) Commitment

A. Qualified and skilled craftsmen will be furnished as required by the Contractor in the fulfillment of its obligations of the Owner.

B. Craftsmen shall be at their place of work at the regular starting time and shall remain at their place of work until quitting time. There shall be no limit on production by Craftsmen nor restrictions on the use of tools or equipment other than that which may be required by safety practice.

C. Where stewards are appointed by respective unions, the steward shall be qualified craftsmen performing the work of his craft who shall exercise no supervisory functions. There shall be no non-working stewards.

#### SECTION 6. Disputes and Grievances

A. This Agreement is intended to provide close cooperation between management and labor. Each of the Unions will assign a representative to this Project for the purpose of completing the construction of the Project economically, efficiently, continuously, and without interruptions, delays, or work stoppages.

B. The Contractors, Unions, and the employees, collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes in accordance with the grievance-arbitration provisions set forth in this Article.

C. Any question or dispute arising out of and during the term of this Project Agreement (other than grievances not covered by a local Collective Bargaining Agreement or trade

jurisdictional disputes) shall be considered a grievance and subject to resolution under the following procedures:

Step 1. (a) When any employee subject to the provisions of this Agreement feels he or she is aggrieved by a violation of this Agreement, he or she, through his or her local union business representative or job steward, shall, within five (5) working days after the occurrence of the violation, give notice to the work-site representative of the involved Contractor stating the provision(s) alleged to have been violated. The business representative of the local union or the job steward and the work-site representative of the involved Contractor and the Project Contractor shall meet and endeavor to adjust the matter within three (3) working days after timely notice has been given. The representative of the Contractor shall keep the meeting minutes and shall respond to the Union representative in writing (copying the Project Contractor) at the conclusion of the meeting but not later than twenty-four (24) hours thereafter. If they fail to resolve the matter within the prescribed period, the grieving party may, within forty-eight (48) hours thereafter, pursue Step 2 of the Grievance Procedure, provided the grievance is reduced to writing, setting forth the relevant information concerning the alleged grievance, including a short description thereof, the date on which the grievance occurred, and the provision(s) of the Agreement alleged to have been violated.

(b) Should the Local Union(s) or the Project Contractor or any Contractor have a dispute with the other party and, if after conferring, a settlement is not reached within three (3) working days, the dispute may be reduced to writing and proceed to Step 2 in the same manner as outlined herein for the adjustment of an employee complaint.

Step 2. The International Union Representative and the involved Contractor shall meet within seven (7) working days of the referral of a dispute to this second step to arrive at a

satisfactory settlement thereof. Meeting minutes shall be kept by the Contractor. If the parties fail to reach an agreement, the dispute may be appealed in writing in accordance with the provisions of Step 3 within seven (7) calendar days thereafter.

Step 3. (a) If the grievance has been submitted but not adjusted under Step 2, either party may request in writing, within seven (7) calendar days thereafter, that the grievance be submitted to an Arbitrator mutually agreed by them. The Contractor and the involved Union shall attempt mutually to select an arbitrator, but if they are unable to do so, they shall request the American Arbitration Association to provide them with a list of arbitrators from which the Arbitrator shall be selected. The rules of the American Arbitration Association shall govern the conduct of the arbitration hearing. The decision of the Arbitrator shall be final and binding on all parties. The fee and expenses of such Arbitration shall be borne equally by the Contractor and the involved Local Union(s).

(b) Failure of the grieving party to adhere to the time limits established herein shall render the grievance null and void. The time limits established herein may be extended only by written consent of the parties involved at the particular step where the extension is agreed upon. The Arbitrator shall have the authority to make decisions only on issues presented to him or her, and he or she shall not have authority to change, amend, add to or detract from any of the provisions of this Agreement.

D. The Project Contractor and Owner shall be notified of all actions at Steps 2 and 3 and shall, upon their request, be permitted to participate in all proceedings at these steps.

#### SECTION 7. Jurisdictional Disputes

A. The assignment of work will be solely the responsibility of the Contractor performing the work involved; and such work assignments will be in accordance with the Plan for the

Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

B. All jurisdictional disputes on this Project, between or among Building and Construction Trades Unions and employers, parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractors and Unions parties to this Agreement.

C. All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

D. Each Contractor will conduct a pre-job conference with the appropriate Building and Construction Trades Council prior to commencing work. The Project Contractor and the Owner will be advised in advance of all such conferences and may participate if they wish.

#### SECTION 8. Joint Commitment (Contractor/Union)

A. Utilization of Union apprentices will be maximized consistent with the best interest of the job in compliance with Local Union Agreements. The high level of union apprenticeship training will be maintained to provide the Industry with productive and knowledgeable craftsmen for the long term.

B. Every reasonable and practicable measure, consistent with the protection of human-dignity, will be taken to assure a work place free of alcohol and drugs. The use of liquor, drugs or any other illegal activities at the Project site, including parking lots, is strictly prohibited.

C. Employees will take their breaks only in their immediate work areas.

D. Acknowledging the safety concerns of Owner and its risk management professionals, we assure the Owner that the parties are committed to safe working practices on the project. The parties, drawing upon the comprehensive safety programs and resources developed by the union construction community, will comply with federal, state and local safety regulations. Both contractors and union craftsmen are well trained in safety practices and commit themselves to applying such practices on this job.

E. The Contractors and Unions agree that there will be no lockouts or work stoppages.

(1) The Contractors and Subcontractors shall not cause, incite, encourage or participate in any lockout of employees on the project during the term of this Agreement.

(2) The Union and its members, agents, representatives, and employees shall not allow, incite, encourage, condone or participate in any strike, walkout, slowdown, picketing, sympathy strike or other work stoppage of any nature whatsoever, whether jurisdictional or otherwise, or observe any picket of any nature during the term of this Agreement. Any such action by the Union or its members, agents, representatives or employees shall be considered a violation of this Agreement.

(3) All employees shall continue to work and to perform all their obligations on the project despite the expiration of any local or other collective bargaining agreement. Any future wage or fringe benefit increase, decrease or modification legally negotiated and established by appropriate local collective bargaining agreement of the Local Unions which are signatories to this Agreement shall be paid retroactively to the expiration date of the preceding local Agreement.



(4) Should any unauthorized strike, slowdown, stoppage of work or interference with construction occur, the Union shall take all necessary steps to bring such activity to a prompt resolution.

#### SECTION 9. Helmets To Hardhats

A. The Contractors and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Contractors and Unions agree to utilize the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

B. The Unions and Contractors agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

#### SECTION 10. Term of Agreement.

A. This Agreement shall become effective on \_\_\_\_\_, 20\_\_\_\_, and shall remain in full force and effect as long as signatory contractors are working on this project.

B. Any of the undersigned parties shall have the right to terminate this Agreement by notifying all other parties in writing, within at least thirty (30) calendar days from the proposed termination date.

## SECTION 11. Notices

The address and telephone number of all of the undersigned shall be on file with Owner's Director of Facility Services at the Highland Building, 1215 Houbolt Road, Joliet, Illinois, 60431, Attention: Patrick VanDuyne. All notices, request and other communications under this Agreement shall be in writing and shall be personally served or sent by certified mail, postage prepaid, return receipt requested, facsimile, or by licensed overnight courier to the appropriate party at the address set forth below or as may otherwise be on file with the Director of Physical Plant as provided herein. Notice shall be deemed given at the time delivered, if personally delivered, at the time indicated on the duly completed postal service return receipt, if delivered, at the time indicated on the duly completed postal service return receipt, if delivered by certified mail, at the time the facsimile is transmitted, if delivered by facsimile, or on the next business day after such notice is sent, if delivered by overnight courier. If a person elects to change their address, they shall do so by notifying the Owner's Director of Facility Services in the manner as provided for herein for the delivery of a notice.

## SECTION 12. Miscellaneous Provisions.

A. Assignment. No party may assign its rights hereunder without the prior written consent of the other parties.

B. Entire Agreement. This Agreement contains the entire agreement between the parties with respect to the subject matter hereof and may not be modified, except in writing signed by the parties hereto. Furthermore, the parties hereto specifically agree that all prior agreements, whether written or oral, relating to the subject matter hereof shall be of no further force or effect from and after the date hereof.

C.     Non-Partnership. This Agreement shall not create a partnership, joint venture or other joint enterprises between the parties hereto.

D.     Severability. If any phrase, clause or provision of this Agreement is declared invalid or unenforceable by a court of competent jurisdiction, such phrase, clause or provisions shall be deemed severed from this Agreement, but will not affect any other provision of this Agreement, which shall otherwise remain in full force and effect. If any restriction or limitation in this Agreement is deemed to be unreasonable, onerous and unduly restrictive by a court of competent jurisdiction, it shall not be stricken in its entirety and held totally void and unenforceable, but shall not be deemed rewritten and shall remain effective to the maximum extent permissible within reasonable bounds.

E.     Prevailing Party. The prevailing party or parties in any litigation arising out of or from this Agreement shall be entitled to recover from the non-prevailing party or parties all costs and expenses reasonably incurred litigating such action, including without limitation, reasonable attorneys' and paralegals' fees and court cost.

F.     Neutral Reading. It is the intent of the parties that this Agreement be deemed to have been prepared by all of the parties hereto.

G.     Waiver. No waiver of any breach or default hereunder shall be considered valid unless in writing and signed by the party given such waiver and no such waiver shall be deemed a waiver of any subsequent breach or default of the same or similar nature.


H.     Headings. The section and subsection headings contained herein are for convenience of the parties only and are not intended to define or limit the context of said Sections and subsections.

I. Governing Law; Venue. The validity, construction and interpretation of this Agreement shall be governed by the State of Illinois. The parties hereto irrevocably agree that all actions or proceedings in any way, manner or respect arising out of or from or related to this Agreement shall be litigated only in the Circuit Court Twelfth Judicial Circuit, Will County, Illinois.

J. Counterparts. This Agreement may be executed in two or more counterparts, each of which may be deemed to be an original.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first above written.

SIGNED FOR THE OWNER:



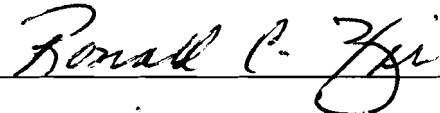
Firm: Joliet Junior College

Title: Director of Facility Services

Date: 4-15-09

Address: 1215 Houbolt Road  
Joliet, Illinois 60431

SIGNED FOR THE UNION:




 Building Trades Council

Title: President

Date: 4-15-09

Address: 2082 Oakleaf St.  
Joliet IL 60436

SIGNED FOR THE ALLIANCE:



Firm: Three River's Construction Alliance

Title: Co-Chair TRCA

Date: 4/15/09

Address: 2134 Maxim Dr.  
Rockdale IL 60436

SIGNED FOR BY THE CONTRACTOR:

\_\_\_\_\_

Firm: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_



*Skilled Union Craftsmen  
Professional Union Contractors*

## **BLUEPRINT FOR SUCCESS**

### **A Labor-Management Project Agreement**

#### **I. Preamble**

To accomplish the goals of quality, cost effectiveness and timeliness requires that all participants exhibit a positive attitude intent on success. There must exist amongst all parties a willingness to cooperate fully in devoting themselves to the goals of the project.

This program has no room for adverse relationships, but only a true spirit of cooperation and commitment. It is essential that the work required to construct this project be accomplished in an efficient and economical manner so as to provide productivity, the highest levels of quality, and the total elimination of delays. This commitment will establish new plateaus in labor/management cooperation.

Therefore, Joliet Junior College, Illinois Community College District 525, of Will, Grundy, Kendall, LaSalle, Kankakee, Livingston and Cook, Illinois, (hereinafter referred to as the "Owner"), its subcontractor(s) of whatever tier, the Will & Grundy Counties Building Trades Council, and the THREE RIVERS' CONSTRUCTION ALLIANCE dedicate themselves to the goal that together, in full cooperation, local labor and management will produce a project of excellent quality, as economically as possible, in a safe environment, under favorable working conditions.

#### **II. Introduction**

This Agreement is entered into this       day of       by and between Joliet Junior College (hereinafter called the "Owner"); and       (hereinafter called and the "Project Contractor"; and the Will & Grundy Counties Building Trades Council (hereinafter called the "Union"), acting in their own behalf and on behalf of their respective affiliates and members; and the THREE RIVERS CONSTRUCTION ALLIANCE, acting on their own behalf and on behalf of their respective affiliates and members, with respect to all construction projects at Joliet Junior College, which includes the Master Plan and Capital Improvement Plan projects thru       located in Will County, Illinois.

It is understood by the parties to this Agreement that other contractors awarded construction work directly or indirectly by the "Owner" will execute this Agreement and become signatory contractors for the purpose of this work.

The intent of the parties to this Agreement is to establish labor and management cooperation between the Project Contractor, all Contractors and Subcontractors performing construction work on this project site, and the appropriate Unions signatory to this Agreement for the express purpose of producing a quality project on schedule and as economically as possible, in a safe environment under favorable working conditions.

### **III. Scope Of The Agreement**

**A.** This Project Agreement shall apply and is limited to the recognized and accepted historical definition of new construction work under the direction of and performed by the Contractor(s), of whatever tier, which may include the Project Contractor, who have contracts awarded for such work on the Project. Such work shall include site preparation work and dedicated off-site work.

It is agreed that the Project Contractor shall require all Contractors of whatever tier who have been awarded contracts for work covered by this Agreement, to accept and be bound by the terms and conditions of this Project Agreement by executing the Letter of Assent (Attachment A) prior to commencing work. The Project Contractor shall assure compliance with this Agreement by the Contractors. It is further agreed that, where there is a conflict, the terms and conditions of this Project Agreement shall supersede and override terms and conditions of any and all other national, area, or local collective bargaining agreements, except for all work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, all instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, and the National Agreement of the International Union of Elevator Constructors, with the exception of Article V, VI, and VII of this Project Agreement, which shall apply to such work.

**B.** Nothing contained herein shall be construed to prohibit, restrict or interfere with the performance of any other operation, work, or function which may occur at the Project site or be associated with the development of the Project.

**C.** This Agreement shall only be binding on the signatory parties hereto and shall not apply to their parents, affiliates or subsidiaries.

**D.** The Owner and/or the Project Contractor have the absolute right to select any qualified bidder for the award of contracts on this Project without reference to the existence or non-existence of any agreements between such bidder and any party to this Agreement; provided, however, only that such bidder is willing, ready and able to become a party to and comply with this Project Agreement, should it be designated the successful bidder.

**E.** It is understood that the Owner, at its sole option, may terminate, delay and/or suspend any or all portions of the Project at any time.

**F.** It is understood that the liability of any employer and the liability of the separate unions under this Agreement shall be several and not joint. The unions agree that this Agreement does not have the effect of creating any joint employer status between or among the Owner, Contractor(s) or any employer.

### **IV. Labor-Management Cooperation Committee**

The parties to this Agreement hereby reaffirm the necessity for joint cooperation and participation by Labor and Management in interpreting and analyzing the effectiveness of management's application of this Agreement as well as Labor's response and any other matter affecting quality, safety, working conditions and productivity. Therefore, to secure this end, it is hereby agreed that a "Labor-Management Cooperation Committee" will be established composed of three representatives from Labor and three representatives from Management; one representative from Labor and one from Management shall be Co-Chairmen of this Committee.

The Labor-Management Cooperation Committee shall meet a minimum of once each month, at the jobsite, and shall discuss the following: reports concerning any violation, dispute, questions or interpretation of the application of practices arising out of this Agreement; safety; working conditions; absenteeism; labor turnover; availability of qualified journeymen; need for training; and any other matter affecting productivity and efficiency on this project.

In the event a dispute is not resolved by the Labor-Management Cooperation Committee, such matter shall then be settled as outlined by the grievance procedure and/or arbitration provisions contained in Articles VII or VIII of this Agreement. The Labor-Management Cooperation Committee shall not have authority to render a decision involving a jurisdictional dispute.

#### **V. Contractors' Commitment**

A. Work assignments will be made in accordance with area practice, consistent with the efficient and economical performance of the work.

B. Before performing work at the job site, the Contractor or Subcontractors of whatever tier actually performing the work will become signatory to the appropriate collective bargaining agreement.

C. The Contractors and Subcontractors shall exercise their management rights. These rights shall include planning, directing, hiring, dismissal, lay-off, transferring, appointing foremen and general foremen and otherwise directing the work force.

D. The Project Contractor agrees that neither it nor any of its contractors or subcontractors will subcontract any work to be done on the Project except to a person, firm or corporation who is or agrees to become party to this Agreement. Any contractor or subcontractor working on the Project shall, as a condition to working on said Project, become signatory to and perform all work under the terms of this Agreement.

#### **VI. Union (Craftsmen) Commitment**

A. Qualified and skilled craftsmen will be furnished as required by the Contractor in the fulfillment of its obligations to the Owner.

B. Craftsmen shall be at their place of work at the regular starting time and shall remain at their place of work until quitting time. There shall be no limit on production by Craftsmen nor restrictions on the use of tools or equipment other than that which may be required by safety practice.

C. Where stewards are appointed by respective unions, the steward shall be a qualified craftsman performing the work of his craft who shall exercise no supervisory functions. There shall be no non-working stewards.

#### **VII. Owner Commitment**

A. The Owner agrees that during the life of this agreement he shall assign construction work on this project only to contractors who are signatory to this agreement and applicable local collective bargaining agreements.

#### **VIII. Disputes & Grievances**

A. This Agreement is intended to provide close cooperation between management and labor. Each of the Unions will assign a representative to this Project for the purpose of completing the construction of the Project economically, efficiently, continuously, and without interruptions, delays, or work stoppages.

B. The Contractors, Unions, and the employees, collectively and individually, realize the importance to all parties to maintain continuous and uninterrupted performance of the work of the Project, and agree to resolve disputes in accordance with the grievance-arbitration provisions set forth in this Article.

**C.** Any question or dispute arising out of and during the term of this Project Agreement (other than grievances not covered by a local Collective Bargaining Agreement or trade jurisdictional disputes) shall be considered a grievance and subject to resolution under the following procedures:

Step 1. (a) When any employee subject to the provisions of this Agreement feels he or she is aggrieved by a violation of this Agreement, he or she, through his or her local union business representative or job steward, shall, within five (5) working days after the occurrence of the violation, give notice to the work-site representative of the involved Contractor stating the provision(s) alleged to have been violated. The business representative of the local union or the job steward and the work-site representative of the involved Contractor and the Project Contractor shall meet and endeavor to adjust the matter within three (3) working days after timely notice has been given. The representative of the Contractor shall keep the meeting minutes and shall respond to the Union representative in writing (copying the Project Contractor) at the conclusion of the meeting but not later than twenty-four (24) hours thereafter. If they fail to resolve the matter within the prescribed period, the grieving party may, within forty-eight (48) hours thereafter, pursue Step 2 of the Grievance Procedure, provided the grievance is reduced to writing, setting forth the relevant information concerning the alleged grievance, including a short description thereof, the date on which the grievance occurred, and the provision(s) of the Agreement alleged to have been violated.

(b) Should the Local Union(s) or the Project Contractor or any Contractor have a dispute with the other party and, if after conferring, a settlement is not reached within three (3) working days, the dispute may be reduced to writing and proceed to Step 2 in the same manner as outlined herein for the adjustment of an employee complaint.

Step 2. The International Union Representative and the involved Contractor shall meet within seven (7) working days of the referral of a dispute to this second step to arrive at a satisfactory settlement thereof. Meeting minutes shall be kept by the Contractor. If the parties fail to reach an agreement, the dispute may be appealed in writing in accordance with the provisions of Step 3 within seven (7) calendar days thereafter.

Step 3. (a) If the grievance has been submitted but not adjusted under Step 2, either party may request in writing, within seven (7) calendar days thereafter, that the grievance be submitted to an Arbitrator mutually agreed upon by them. The Contractor and the involved Union shall attempt mutually to select an arbitrator, but if they are unable to do so, they shall request the American Arbitration Association to provide them with a list of arbitrators from which the Arbitrator shall be selected. The rules of the American Arbitration Association shall govern the conduct of the arbitration hearing. The decision of the Arbitrator shall be final and binding on all parties. The fee and expenses of such Arbitration shall be borne equally by the Contractor and the involved Local Union(s).

(b) Failure of the grieving party to adhere to the time limits established herein shall render the grievance null and void. The time limits established herein may be extended only by written consent of the parties involved at the particular step where the extension is agreed upon. The Arbitrator shall have the authority to make decisions only on issues presented to him or her, and he or she shall not have authority to change, amend, add to or detract from any of the provisions of this Agreement.

**D.** The Project Contractor and Owner shall be notified of all actions at Steps 2 and 3 and shall, upon their request, be permitted to participate in all proceedings at these steps.

## **IX. Jurisdictional Disputes**

**A.** The assignment of work will be solely the responsibility of the Contractor performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

**B.** All jurisdictional disputes on this Project, between or among Building and Construction Trades Unions and employers, parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be



adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractors and Unions parties to this Agreement.

**C.** All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor's assignment shall be adhered to until the dispute is resolved. Individuals violating this section shall be subject to immediate discharge.

**D.** Each Contractor will conduct a pre-job conference with the appropriate Building and Construction Trades Council prior to commencing work. The Project Contractor and the Owner will be advised in advance of all such conferences and may participate if they wish.

#### **X. Joint Commitment (Contractor/Union)**

**A.** Utilization of Union apprentices will be maximized consistent with the best interest of the job in compliance with Local Union Agreements. The high level of union apprenticeship training will be maintained to provide the Industry with productive and knowledgeable craftsmen for the long term.

**B.** Every reasonable and practicable measure, consistent with the protection of human dignity, will be taken to assure a work place free of alcohol and drugs. The use of liquor, drugs or any other illegal activities at the Project site, including parking lots, is strictly prohibited.

**C.** Employees will take their breaks only in their immediate work areas.

**D.** Acknowledging the safety concerns of today's construction Owner and its risk management professionals, we assure the Owner that the parties are committed to safe working practices on the project. The parties, drawing upon the comprehensive safety programs and resources developed by the Union construction community, will comply with federal, state, and local safety regulations. Both contractors and union craftsmen are well trained in safety practices and commit themselves to applying such practices on this job.

**E.** The Contractors and Unions agree that there will be no lockouts or work stoppages.

(1) The Contractors and Subcontractors shall not cause, incite, encourage or participate in any lockout of employees on the project during the term of this Agreement.

(2) The Union and its members, agents, representatives, and employees shall not allow, incite, encourage, condone or participate in any strike, walkout, slowdown, picketing, sympathy strike or other work stoppage of any nature whatsoever, whether jurisdictional or otherwise, or observe any picket of any nature during the term of this Agreement. Any such action by the Union or its members, agents, representatives or employees shall constitute a violation of this Agreement.

(3) All employees shall continue to work and to perform all their obligations on the project despite the expiration of any local or other collective bargaining agreement. Any future wage or fringe benefit increase, decrease or modification legally negotiated and established by appropriate local collective bargaining agreements of the Local Unions which are signatories to this Agreement shall be paid retroactively to the expiration of the preceding local Agreement.

(4) Should any unauthorized strike, slowdown, stoppage of work or interference with construction occur, the Union shall take all necessary steps to bring such activity to a prompt resolution.

**XI. Helmets To Hardhats**

A. The Employers and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Employers and Unions agree to utilize the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

B. The Unions and Employers agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

**XII. Term of Agreement**

A. This Agreement shall become effective on April 15, 2009, and shall remain in full force and effect as long as signatory contractors are working on this project.

B. Either party shall have the right to terminate this Agreement by notifying all other parties, in writing, within at least thirty (30) calendar days from the proposed termination date.

**FOR THE OWNER:**

  
JOLIET JUNIOR COLLEGE

TITLE: President

DATE: 4-15-09

**FOR THE PROJECT CONTRACTOR:**

\_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**FOR THE ALLIANCE:**

  
THREE RIVERS CONSTRUCTION

TITLE: Co-Chair TRCA

DATE: 4/15/09

**FOR THE BUILDING TRADES:**

  
WILL & GRUNDY BUILDING TRADES

TITLE: Presid.

DATE: 4-15-09



*Skilled Union Craftsmen  
Professional Union Contractors*

## BLUEPRINT FOR SUCCESS

### A Labor-Management Project Agreement

#### Addendum To TRCA/JJC Project Labor Agreement Dated 4-15-09

1. It is agreed by all parties that while the College has completed their Master Plan projects, the parties to the Agreement wish to continue on with the 'Blueprint for Success, A Labor-Management Project Agreement' signed on April 15, 2009. The conditions of the existing Agreement shall remain in effect thru April 2018 until such time as both parties have the opportunity to evaluate current and future construction projects at the College as explained in Article XII of the Agreement.
2. The pre-job conferences called for in Article IX Section D will apply to all bids with a gross value in excess of \$25,000.00. Bids less than the stated \$25,000.00 will be exempt from the pre-job conference but the OWNER agrees to notify TRCA of any such bid lettings in a timely manner.
3. This Agreement covers all new construction and improvement projects but is not intended to nor will it interfere with the OWNER's right to perform general routine maintenance on their facilities.

FOR THE OWNER:

*Judy Mitchell*  
Joliet Junior College

*Judy Mitchell, EdD*  
Printed Name

TITLE: *VA Administrative Svcs*

DATE: *3-9-15*

FOR THE BUILDING TRADES

*Don Gregory*  
Will & Grundy Counties Building Trades Council

*Don Gregory*  
Printed Name

TITLE: *President*

DATE: *3-9-15*

FOR THE ALLIANCE:

*Thomas A. White*  
T.R.C.A.

*Thomas A. White*  
Printed Name

TITLE: *Executive Director*

DATE: *3-9-15*

## Will County Prevailing Wage Rates posted on 8/15/2025

						Overtime										
Trade Title	Rg	Type	C	Base	Foreman	M-F	Sa	Su	Hol	H/W	Pension	Vac	Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
ASBESTOS ABT-GEN	All	ALL		51.40	52.40	1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
ASBESTOS ABT-MEC	All	BLD		42.02	45.38	1.5	1.5	2.0	2.0	16.44	16.64	0.00	0.92		3.37	6.73
BOILERMAKER	All	BLD		58.91	64.21	2.0	2.0	2.0	2.0	7.07	27.02	0.00	3.69	2.31	0.00	39.30
BRICK MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45
CARPENTER	All	ALL		56.71	62.38	2.0	2.0	2.0	2.0	13.64	30.98	1.77	1.04		0.00	0.00
CEMENT MASON	All	ALL		48.85	50.85	2.0	1.5	2.0	2.0	13.37	33.80	0.00	0.80	0.00	0.00	0.00
CERAMIC TILE FINISHER	All	BLD		49.09	49.09	1.5	1.5	2.0	2.0	13.25	17.61	0.00	1.37	0.00	5.57	11.14
CERAMIC TILE LAYER	All	BLD		57.04	62.04	1.5	1.5	2.0	2.0	13.25	21.60	0.00	1.50	0.00	7.63	15.26
COMMUNICATION TECHNICIAN	All	BLD		46.00	50.60	1.5	1.5	2.0	2.0	17.54	18.15	0.00	0.75	2.37	0.00	0.00
ELECTRIC PWR EQMT OP	All	ALL		64.58	70.87	1.5	1.5	2.0	2.0	12.99	22.45	0.00	3.66	0.00	0.00	0.00
ELECTRIC PWR GRNDMAN	All	ALL		50.37	70.87	1.5	1.5	2.0	2.0	10.13	17.51	0.00	2.85	0.00	0.00	0.00
ELECTRIC PWR LINEMAN	All	ALL		64.58	70.87	1.5	1.5	2.0	2.0	12.99	22.45	0.00	3.66	0.00	0.00	0.00
ELECTRICIAN	All	BLD		56.00	61.04	1.5	1.5	2.0	2.0	18.13	22.93	0.00	1.35	5.40	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		70.68	79.52	2.0	2.0	2.0	2.0	16.28	21.36	5.65	0.80		0.00	0.00
GLAZIER	All	BLD		53.55	55.05	1.5	2.0	2.0	2.0	16.04	26.64	0.00	2.30	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		56.02	59.38	1.5	1.5	2.0	2.0	16.44	19.88	0.00	0.92		4.99	9.97
IRON WORKER	All	ALL		52.00	57.20	2.0	2.0	2.0	2.0	14.61	30.95	0.00	1.10		0.00	0.00
LABORER	All	ALL		51.40	52.15	1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
LATHER	All	ALL		56.71	62.38	2.0	2.0	2.0	2.0	13.64	30.98	1.77	1.04		0.00	0.00
MACHINIST	All	BLD		60.39	64.39	1.5	1.5	2.0	2.0	11.43	9.95	1.85	1.47	0.00	0.00	0.00
MARBLE FINISHER	All	ALL		40.21	54.60	1.5	1.5	2.0	2.0	12.95	23.81	0.00	0.98	0.00	3.00	6.00
MARBLE SETTER	All	BLD		52.00	57.20	1.5	1.5	2.0	2.0	12.95	25.57	0.00	1.25	0.00	3.88	7.76
MATERIAL TESTER I	All	ALL		41.40		1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
MATERIALS TESTER II	All	ALL		46.40		1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
MILLWRIGHT	All	ALL		56.71	62.38	2.0	2.0	2.0	2.0	13.64	30.98	1.77	1.04		0.00	0.00
OPERATING ENGINEER	All	BLD	1	64.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00

# Will County Prevailing Wage Rates posted on 8/15/2025

OPERATING ENGINEER	All	BLD	2	63.50	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	60.95	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	4	59.20	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	5	68.55	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	6	65.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	7	67.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	1	73.95	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	2	72.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	3	67.95	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	4	63.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	5	75.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	6	63.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	1	63.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	2	62.45	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	3	60.40	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	4	59.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	5	57.80	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	6	66.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	7	64.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
PAINTER	All	ALL		54.30	61.09	1.5	1.5	1.5	2.0	16.26	17.59	0.00	1.86	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		46.76	52.53	1.5	1.5	2.0	2.0	8.20	16.81	0.00	0.00	0.00	0.00	0.00
PILEDRIIVER	All	ALL		56.71	62.38	2.0	2.0	2.0	2.0	13.64	30.98	1.77	1.04		0.00	0.00
PIPEFITTER	All	BLD		58.50	61.50	1.5	1.5	2.0	2.0	15.15	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		51.10	54.17	1.5	1.5	2.0	2.0	18.43	22.10	0.00	1.25	0.00	0.00	0.00
PLUMBER	All	BLD		60.50	64.15	1.5	1.5	2.0	2.0	19.10	17.94	0.00	1.98		0.00	0.00
ROOFER	All	BLD		52.00	57.00	1.5	1.5	2.0	2.0	12.20	17.59	0.00	1.14	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		58.83	63.54	1.5	1.5	2.0	2.0	17.16	19.90	0.00	1.79	2.62	0.00	0.00
SPRINKLER FITTER	All	BLD		63.25	66.00	1.5	1.5	2.0	2.0	15.45	19.90	0.00	1.15	0.00	0.00	0.00
STONE MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45
SURVEY WORKER	All	BLD		58.45	59.45	1.5	1.5	2.0	2.0	19.10	14.40	0.00	1.59		0.00	0.00

## Will County Prevailing Wage Rates posted on 8/15/2025

SURVEY WORKER	All	HWY		58.45	59.45	1.5	1.5	2.0	2.0	19.10	14.40	0.00	1.59		0.00	0.00
TERRAZZO FINISHER	All	BLD		51.44	51.44	1.5	1.5	2.0	2.0	13.25	18.87	0.00	1.41	0.00	4.45	8.89
TERRAZZO MECHANIC	All	BLD		55.35	58.85	1.5	1.5	2.0	2.0	13.25	20.26	0.00	1.46	0.00	4.70	9.39
TRAFFIC SAFETY WORKER I	All	HWY		43.40	45.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		44.40	46.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	1	47.95	48.50	1.5	1.5	2.0	2.0	12.15	14.31	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	2	48.10	48.50	1.5	1.5	2.0	2.0	12.15	14.31	0.00	0.35		0.00	0.00
TRUCK DRIVER	All	ALL	3	48.30	48.50	1.5	1.5	2.0	2.0	12.15	14.31	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	All	ALL	4	48.50	48.50	1.5	1.5	2.0	2.0	12.15	14.31	0.00	0.35	0.00	0.00	0.00
TUCK POINTER	All	BLD		52.53	53.53	1.5	1.5	2.0	2.0	11.05	23.16	0.00	1.46	0.00	0.00	0.00

### Legend

**Rg** Region

**Type** Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

**C** Class

**Base** Base Wage Rate

**OT M-F** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

**OT Sa** Overtime pay required for every hour worked on Saturdays

**OT Su** Overtime pay required for every hour worked on Sundays

**OT Hol** Overtime pay required for every hour worked on Holidays

**H/W** Health/Welfare benefit

**Vac** Vacation

**Trng** Training

**Other Ins** Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations WILL COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

### EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including

## **Will County Prevailing Wage Rates posted on 8/15/2025**

mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

### **CERAMIC TILE FINISHER**

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

### **COMMUNICATIONS TECHNICIAN**

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice, sound and vision production and reproduction, telephone and telephone interconnect, facsimile, equipment and appliances used for domestic, commercial, educational and entertainment purposes, pulling of wire through conduit but not the installation of conduit.

### **MARBLE FINISHER**

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast

## **Will County Prevailing Wage Rates posted on 8/15/2025**

tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

### **OPERATING ENGINEER - BUILDING**

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

### **OPERATING ENGINEERS - HIGHWAY CONSTRUCTION**



## **Will County Prevailing Wage Rates posted on 8/15/2025**

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

## **Will County Prevailing Wage Rates posted on 8/15/2025**

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

### **OPERATING ENGINEER - FLOATING**

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

### **SURVEY WORKER**

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking.

### **SURVEY FOREMAN**

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking; oversees survey crew operations; and/or coordinates work of survey crews.

### **TRAFFIC SAFETY Worker I**

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

### **TRAFFIC SAFETY WORKER II**

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

## **Will County Prevailing Wage Rates posted on 8/15/2025**

### **TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION**

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

### **TERRAZZO FINISHER**

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

### **Other Classifications of Work:**

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

### **LANDSCAPING**

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work

## **Will County Prevailing Wage Rates posted on 8/15/2025**

performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

**CERTIFICATION OF CONTRACT/BIDDER**

The below signed contractor/bidder hereby certifies that it is not barred from bidding on this or any other contract due to any violation of either Section 33E-3 or 33E-4 of Article 33E, Public Contracts, of the Illinois Criminal Code of 1961, as amended. This certification is required by Public Act 85-1295. This Act relates to interference with public contracting, bid rigging and rotating, kickbacks and bribery.

---

SIGNATURE OF CONTRACTOR/BIDDER

---

TITLE

---

DATE

THIS FORM **MUST** BE SIGNED, SCANNED, AND RETURNED WITH YOUR  
ELECTRONIC BID IN ESM.

**CERTIFICATE OF COMPLIANCE WITH**  
**ILLINOIS DRUG-FREE WORKPLACE ACT**

\_\_\_\_\_, does hereby certify pursuant to the *Illinois Drug-Free Workplace Act* (30 ILCS 580/) that [he, she, it] shall provide a drug-free workplace for all employees engaged in the performance of work under the contract by complying with the requirements of the *Illinois Drug-Free Workplace Act* and, further certifies, that [he, she, it] is not ineligible for award of this contract by reason of debarment for a violation of the *Illinois Drug-Free Workplace Act*.

\_\_\_\_\_  
 By Authorized Agent

\_\_\_\_\_  
 Date

SUBSCRIBED AND SWORN TO before me  
 This \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
 NOTARY PUBLIC

**EXECUTE AND ATTACH TO PROPOSAL FORM****JOLIET JUNIOR COLLEGE – REQUEST FOR BID****DRAWINGS ARE AVAILABLE ON THE FOLLOWING WEBSITE:****[WWW.JJC.EDU/COMMUNITY/VENDORS](http://WWW.JJC.EDU/COMMUNITY/VENDORS)****BID FORM**

To: Joliet Junior College  
 1215 Houbolt Road  
 Joliet, IL 60431-8938

Project: \_\_\_\_\_

Date: \_\_\_\_\_

Submitted by:

\_\_\_\_\_  
 (Full Name)

\_\_\_\_\_  
 (Address)

\_\_\_\_\_  
 (City, State, Zip)

\_\_\_\_\_  
 (Phone)

\_\_\_\_\_  
 (Fax)

\_\_\_\_\_  
 (Email)

**PART 1 OFFER**

Having examined the site and having familiarized itself with the conditions affecting the cost of the work associated with the \_\_\_\_\_, and with the bidding documents, Bidder hereby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the subdivision of work stated above in accordance with the bidding documents for the following sums:

<b>Base Bid:</b>	
<b>Allowance:</b>	\$10,000.00
<b>Total Base Bid with Allowance:</b>	

**Base Bid with Allowance:**

\_\_\_\_\_  
 Dollars(\$\_\_\_\_\_)

Write amount in both alpha and numeric, in case of discrepancy the lesser amount shown will govern.

**Alternate #1 (Bid Package 2):**

\_\_\_\_\_  
 Dollars(\$\_\_\_\_\_)

Write amount in both alpha and numeric, in case of discrepancy the lesser amount shown will govern.

We have included herewith, the Security Deposit as required by the Instructions to Bidders.

## **PART 2      ACCEPTANCE**

This offer shall be open to acceptance and is irrevocable for thirty (30) days from the Bid closing date.

If the bid is accepted by the Owner within the time period stated above, we will:

- A.      Execute the Agreement within ten (10) days of receipt of Notice of Award.
- B.      Furnish the required bonds within ten (10) days of receipt of Notice of Award in the form described in the Instruction to Bidders.
- C.      Furnish the required Certificate of Insurance within ten (10) days of receipt of Notice of Award in the form and amounts described in the Instruction to Bidders.
- D.      Commence work as established by the written Notice to Proceed.

If this Bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bonds(s), the Security Deposit shall be forfeited as damages to the Owner by reason of our failures.

In the event our Bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

## **PART 3      CONTRACT TIME**

If the Bid is accepted, we will:

- A.      Complete the work in manner consistent to meet the requirements of the schedule (\_\_\_\_\_) consecutive calendar days from the date established as the Date of Commencement in the Notice to Proceed.
- B.      Contractor has examined the Schedule included in these documents and takes no exception, or records the following exceptions:

---



---



---

## **PART 4      CONTRACTOR'S FEES FOR CHANGES IN THE WORK**

Lump Sum of Time and Materials Changes: We the undersigned bidder agree that the following percentages for overhead and profit shall be added to job costs for the



net amount of work added to or deleted from the contract by written lump sum or time and material change orders recommended by the Engineer and approved by the Owner:

Add to net extra for job costs for additional work performed by:

Our own forces 12%

Our subcontractor 5% (including assigned subcontractors)

Note: Insurance, bond, and taxes are considered as job cost items and are not included in the percentages listed above.

## **PART 5      ADDENDA**

The following Addenda have been received. The modifications to the Bid Documents noted therein have been considered and all costs thereto are included in the Bid Sum.

Addendum # \_\_\_\_\_ Dated \_\_\_\_\_

Addendum # \_\_\_\_\_ Dated \_\_\_\_\_

Addendum # \_\_\_\_\_ Dated \_\_\_\_\_

## **PART 6      SUBCONTRACTORS**

- A. The following work will be performed (or provided) by the Subcontractors we have indicated below:

	<u>Name of Subcontractor</u>	<u>Work Performed</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

- B. We understand, and hereby agree, that we are obligated to use the indicated subcontractors, unless prior written permission to change has been obtained from the Owner.

## **PART 7      RELATED WORK EXPERIENCE**

List a minimum of three jobs of similar type and scope performed in the last five years:

1. Client: \_\_\_\_\_  
Building: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Dollar Amount: \_\_\_\_\_
  
2. Client: \_\_\_\_\_  
Building: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Dollar Amount: \_\_\_\_\_
  
3. Client: \_\_\_\_\_  
Building: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Dollar Amount: \_\_\_\_\_

## **PART 8 BID FORM ADDITION**

### **Apprenticeship and Training Certification**

In accordance with the Illinois Procurement Code, the Bidder certifies that the work to be performed by it and/or its subcontractors shall, at the time of such bid opening and at the time of the performance of work pursuant to the terms of this Contract, shall have participated in the approved apprenticeship and training programs as provided for above. The bidder shall list, in the space below, the official name of the program sponsor holding the certificate of registration or all types of work or crafts in which the bidder is a participant and that will be performed by the bidder and its sub-contractor's employees. Work that will be sub-contracted shall be indicated to be subcontracted work as provided for herein. **Failure to list required information may result in disqualification of bid.**

---

---

---



---



---



---



---



---

## **PART 9      CONTRACTOR EVALUATION**

Upon completion of the project, a Construction Contractor Performance Evaluation form will be completed by the A/E and the JJC Project Coordinator. The contractor will be evaluated in the following categories:

- Professionally Administered and Supervised Work
- Business Practices
- Overall Performance
- Workmanship
- Timeliness
- Project Management

## **PART 10      BID FORM SIGNATURES(S)**

The Corporate Seal of:

---

(Bidder – please print the full name of your Proprietorship, Partnership, or Corporation)

Was hereunto affixed in the presence of:

---

(Authorized signing officer) (Title)

(Seal)

---

(Authorized signing officer) (Title)

If the bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION