

Four Rivers Sanitation Authority Rockford, Illinois

Bidding Requirements and Contract Forms and General Provisions and Technical Specifications for Sanitary Sewer Construction

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for

(Rebid of Bid Doc. No. 22-406) Collection Systems Operations Facility Structural Steel Package

Capital Project No. 2217

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Article 1 — Notice to Bidders

The Four Rivers Sanitation Authority (FRSA) will receive signed and sealed bids for the (Rebid of Bid Doc. No. 22-406) Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217, at the Steve Graceffa Administration Building (Administration Building) at 3501 Kishwaukee Street, Rockford, Illinois until 2:00 p.m. on Thursday, May 19, 2022, at which time and place responsive / responsible bids will be publicly opened and read aloud.

The (Rebid of Bid Doc. No. 22-406) Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217, consists of production of a red-iron structural steel package for a new operations facility including the fabrication of structural steel, storage at the fabricator's facility until ready for erection, and delivery to the project site as indicated in the Project Manual and on the Contract Drawings. Construction of the operations facility will be bid at a later date; the selected steel fabricator will be assigned to the General Contractor at that time.

Structural steel shall be available for procurement no later than October 31, 2022. Liquidated damages shall be \$300.00 per calendar day beyond that date.

Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting the FRSA Engineering Department at 815-387-7660. Additional information can be found at the FRSA website <u>fourrivers.illinois.gov</u>.

A non-mandatory Pre-Bid Conference will be held on May 10, 2022 at 10:00 a.m. via GoToMeeting. Login and dial-in information for the Pre-Bid Conference is listed below:

- 1. From a computer, tablet, or smartphone: <u>https://meet.goto.com/856826293</u>
- 2. Dial-in using a phone: (872)-240-3311, Access Code 856-826-293

Plans and specifications may also be viewed at the following plans rooms:

- 1. Northern Illinois Building Contractors Association (1111 S. Alpine Rd, Rockford, IL).
- 2. Contractors Association of Will & Grundy Counties (233 N. Springfield Ave., Joliet, IL).
- 3. Greater Peoria Contractors & Suppliers Association (1811 West Altorfer, Peoria, IL).
- 4. Southern Illinois Builders Association (1468 Green Mount Rd., O'Fallon, IL).
- 5. East Central Illinois Building & Construction Trades Council (3301 N. Boardwalk, Champaign, IL).
- 6. Quincy Plan Room (201 Broadway, Quincy, IL).

All construction shall be done in accordance with specifications on file with FRSA, including FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction* (Current Edition).

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security (such as a bid bond, cash bond, irrevocable letter of credit, surety bond, or letter of commitment issued by a bank, savings and loan association, surety, or insurance company), in the amount of five percent (5%) of the total bid price. This amount is a guarantee that, if the Proposal is accepted, a Contract will be entered into and its performance properly secured.

Collection Systems Operations Facility Structural Steel Package Capital Project No. 2217

The successful bidder will be required to furnish a satisfactory surety such as Performance Bond, cash bond, irrevocable letter of credit, surety bond, or letter of commitment issued by a bank, savings and loan association, surety, or insurance company. No Bid shall be withdrawn without FRSA's consent for a period of thirty (30) days after the scheduled closing time for receipt of bids.

FRSA reserves the right to reject any or all bids, or any part thereof, or to accept any bid or any part thereof, or to waive any formalities in any bids, deemed to be in the best interest of FRSA.

Dated this day of, 2022.	05
BY: Timothy S. Har	nson, Executive Director
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Article 2 — Instructions to Bidders

1 General

1.1 Scope and Intent

This section of the Contract Documents is concerned with furnishing detailed information and requirements for preparing bids to prospective bidders, bidders' responsibility, the preparation and the submission of bids, basis for awarding the Contract and other general information concerned with bidding and executing the Contract.

1.2 Contradictions

If in the case of apparent contradiction between or among the Contract Documents, the Contract Documents shall be consulted in the following order: Addenda, Agreement, Supplementary Drawings, Instructions to Bidders, Detailed Specifications, Plans, Four Rivers Sanitation Authority (FRSA) General Provisions and Technical Specifications for Sanitary Sewer Construction. The language in the first such document in which language regarding the conflict, error or discrepancy occurs shall control.

1.3 Pre-Bid Conference

A non-mandatory Pre-Bid Conference will be held on May 10, 2022 at 10:00 a.m. via GoToMeeting. Login and dial-in information for the Pre-Bid Conference is listed below:

- 1. From a computer, tablet, or smartphone: https://meet.goto.com/856826293
- 2. Dial-in using a phone: (872)-240-3311, Access Code 856-826-293

2 Legal Requirements

2.1 Illinois Regulations

- 1. Public Act 100-1177 (820 ILCS 130/) entitled the "Prevailing Wage Act" requires the Bidder to comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx. The Bidder is responsible for verifying current information at the State's website.
- 2. Public Act 83–1030 (30 ILCS 565/) entitled the "Steel Products Procurement Act" requires that steel products used or supplied in performance of this Contract or subcontract must be manufactured or produced in the United States with three exceptions.

The provisions of this Section shall not apply:

- a. Where the Contract involves an expenditure of less than \$500.
- b. Where the executive head of the public agency certifies in writing that
 - i. the specified products are not manufactured or produced in the United States in sufficient quantities to meet the agency's requirements, or
 - ii. obtaining the specified products, manufactured or produced in the United States would increase the cost of the Contract by more than 10%.

- c. When its application is not in the public interest.
- 2. Public Act 96-929 (30 ILCS 570/) entitled the "Illinois Workers on Public Works Act" provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and, further, that Illinois workers are available and capable of performing the particular type work involved.
- 4. Public Act 101-0221 entitled the "Workplace Transparency Act" requires that any party to a contract adopt and promulgate written sexual harassment policies that include, as a minimum, the following information:
 - a. the illegality of sexual harassment
 - b. the definition of sexual harassment under Illinois State law
 - c. a description of sexual harassment, utilizing examples
 - d. my (our) organization's internal complaint process including penalties
 - e. the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Illinois Human Rights Commission
 - f. directions on how to contact the Department and the Commission
 - g. protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act

Upon request, this information must be provided to the Illinois Department of Human Rights and the FRSA.

- 5. With regard to nondiscrimination in employment, the Contractor for this project will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations.
- 6. The Contractor for this project must comply with the Occupational Safety and Health Act.
- 7. The Contractor for this project must comply with the Federal Drug-Free Workplace Act.
- 8. Public Act 96-1416 requires the Certification of Clean Construction and Demolition Debris (CCDD) and uncontaminated soil prior to disposal at a CCDD fill site. The Contractor for this project must comply with Public Act 96-1416 and be responsible for the certifications and any fees associated with the disposal at a CCDD fill site.



a. In the event that contaminated soil is uncovered on the project, the Contractor must notify FRSA immediately. Any extra costs resulting from the presence of contaminated soil must be evaluated in accordance with FRSA General Provisions & Technical Specs for Sanitary Sewer Construction; General Conditions: Article 5 – Time Provisions and Article 8 – Changes.

2.2 Americans with Disabilities Act

The Contractor for this project will comply with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify Four Rivers Sanitation Authority (FRSA) and their representatives from all:

- 1. suits, claims, or actions
- 2. costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement
- 3. damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the Contract.

3 General Instructions

3.1 Bidder's Responsibility

As applicable, Bidders are cautioned not to submit proposals until having carefully examined the proposed work and adjacent premises and the various means of approach and access to the site, and having made all necessary investigations to inform themselves thoroughly as to the facilities for delivering, placing and handling the materials at the site, and having informed themselves thoroughly as to all difficulties involved in the completion of all the work under this Contract in accordance with its requirements.

Bidders must examine the Plans, Specifications and other Contract Documents and shall exercise their own judgment as to the nature and amount of the whole of the work to be done and for the bid prices must assume all risk of variance, by whomsoever made, in any computation or statement of amount or quantities necessary to complete fully the work in strict compliance with the Contract Documents. The Bidder must satisfy himself by making borings or test pits, or by such methods as he may prefer, as to the character and location of the materials to be encountered or work to be performed. No pleas of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work under this Contract, as a result of failure to make the necessary examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Contract to fulfill, in every detail, all of the requirements of the Contract Documents, or will be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

The Bidder, therefore, shall satisfy himself by such means as he may deem proper as to the location of all structures that may be encountered in construction of the work.

3.2 Addenda and Interpretations

No interpretation of the meaning of the Plans, Specifications, or other Contract Documents will be made to any bidder orally. Every request for such interpretation must be in writing addressed to Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois. To be given consideration, such request must be received at least five (5) days prior to the date

fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda which, if issued, will be sent by email, fax, or certified mail with acknowledgement of receipt requested, to all prospective bidders, at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve said bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

3.3 Laws and Regulations

The prospective bidder is warned that he must comply with all laws of the United States Government, State of Illinois, all ordinances and regulations of FRSA in the performance of the work under this Contract. The Bidder's attention is specifically called to that provision of the General Conditions regarding the rate of wage to be paid on the work.

3.4 Steel Cost Adjustment Provision

Bidder must indicate on the Lump Sum Proposal Form whether they elect to participate in the Steel Cost Adjustment Provision as outlined in Section IV of this Contract. The adjustment may be either provide additional compensation to the Contractor or a credit to FRSA. Adjusted steel material costs will apply only to the itemized components that are selected for participation by the bidder; it is the prerogative of the bidder for which items are ultimately included. Bidder may also elect to not participate in this adjustment.

3.5 Form, Preparation, and Presentation of Proposals

For particulars as to the quantity and quality of the supplies, materials and equipment to be furnished, and the nature and extent of the work or labor to be done, prospective bidders are referred to the Contract Documents, which may be examined or obtained at the office of FRSA.

Each bid will be submitted upon the prescribed Proposal form. All blank spaces for bid prices must be filled in, in ink, with the unit or total sum or both for which the Proposal is made. If the Proposal contains any omissions, erasures, alterations, additions or items not called for in the itemized Proposal, or contains irregularities of any kind, such may constitute sufficient cause for rejection of bid. In case of any discrepancy in the unit price or amount bid for any item in the Proposal, the unit price as expressed in figures will govern. In no case is the agreement form to be filled out or signed by the bidder.

Bidders may opt to contact FRSA's Engineering Department at 815.387.7660 to obtain an electronic Proposal form. If used, this form must be attached to the hard copy Proposal form and appropriately signed and executed with the bid.

The bid must be verified and be presented on the prescribed form in a sealed envelope on or before the time and at the place stated in the Advertisement for Bids, endorsed with the name of the person, firm or corporation presenting it, the date of presentation, and the title of the work for which the bid is made. If forwarded by mail, the sealed envelope containing the Proposal and marked as directed above, must be enclosed in another envelope addressed to Clerk of the Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois, 61109 and be sent preferably by certified mail. FRSA will not accept facsimile generated bids.

3.6 Bid Security

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Bond or cash, certified or bank cashier's check on a solvent bank or trust company, drawn to the order of the Four Rivers Sanitation Authority or other acceptable forms of Bid Security (such as a cash bond, irrevocable letter of credit, surety bond, or letter of commitment issued by a bank, savings and loan association, surety, or insurance company), in the amount specified in Article One, Notice to Bidders. This deposited sum is a guarantee that, if the Proposal is accepted, a contract will be entered into and its performance properly secured.

Within ten (10) days after the opening of bids, the deposits of all but the three lowest bidders will be returned. The deposits of the remaining two unsuccessful bidders will be returned within three (3) days after the execution of the Contract, or, if no such Contract has been executed, within thirty (30) days after the date of opening bids. The deposit of the successful bidder will be returned only after he has duly executed the Contract and furnished the required bond and insurance.

3.7 Affidavit of Compliance

Each proposal must be accompanied by an executed Affidavit of Compliance. A separate Affidavit of Compliance form is enclosed with the Proposal packet. Failure to submit an executed Affidavit of Compliance with the Proposal may constitute sufficient cause for rejection of the bid.

3.8 Statement of Qualifications

Each Proposal must be accompanied by a Statement of Qualifications certifying that the bidder is registered to do business in the State of Illinois and provides documentation that the bidder possesses the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations. The bidder shall document no less than three (3) contracts for structural steel fabrication work within the past five (5) years of similar scope to the bid being submitted. FRSA reserves the right to request additional information, as needed, to evaluate bids prior to making an award.

3.9 Comparison of Proposals

Bids on lump sum contracts will be considered upon the basis of the lowest sum responsive and responsible bid.

3.10 Acceptance of Bids and Basis of Award

No bidder may withdraw his bid after the scheduled closing time for receipt of bids, for at least thirty (30) days.

The Contract will be awarded, if at all, to the lowest responsive, responsible bidder. Four Rivers Sanitation Authority also reserves the right to reject any or all bids.

The bidder whose Proposal is accepted shall enter into a written Contract for the performance of the work and furnish the required bonds and insurance certificate within ten (10) days after written notice by FRSA's Director of Engineering has been served on such bidder personally or by mailing a postpaid wrapper to such bidder at the address given in his proposal. If the bidder to whom the Contract is awarded refuses or neglects to execute it or fails to furnish the required bond and insurance within five (5) days after receipt by him of the notice, the amount

of his deposit shall be forfeited and shall be retained by the FRSA as liquidated damage and not as a penalty. It being now agreed that said sum is a fair estimate of the amount of damages that the FRSA will sustain in case said bidder fails to enter into a Contract and furnish the required bond and insurance. No plea of mistake in the bid shall be available to the bidder for the recovery of his deposit or as a defense to any action based upon the neglect or refusal to execute a Contract.

3.10.1 Evaluation of Responsiveness

The responsiveness of bidders will be judged on the basis of the completeness of the bid submitted. To be responsive, a Bid must be submitted on the forms provided as part of the Bid Documents and comply with all the requirements of the Instruction to Bidders.

3.10.2 Evaluation of Responsibility

To be judged as responsible, the bidder shall:

- a. Have adequate financial resources for performance, the necessary experience, organization, technical qualifications, and facilities, or a firm commitment to obtain such by subcontracts;
- b. Be able to comply with the required completion schedule for the project;
- c. Have a satisfactory record of integrity, judgment, and performance, including, in particular, any prior performance on contracts from FRSA;
- d. Have an adequate financial management system and audit procedures, that provide efficient and effective accountability and control of all property, funds, and assets;
- e. Conform to the civil rights, equal employment opportunity and labor law requirements of the Bid Documents.
- f. Have satisfactorily completed no less than three (3) contracts for structural steel fabrication work within the past five (5) years of similar scope to the bid being submitted.

3.11 The Rejection of Bids

FRSA reserves the right to reject any bid if the evidence submitted in the statement of the bidder's qualifications, or if investigation of such bidder fails to satisfy FRSA that such bidder is properly qualified to carry out the obligations and to complete the work contemplated therein. Any or all proposals will be rejected if there is reason to believe that collusion exists among the bidders. Conditional bids will not be accepted. FRSA reserves the right to reject any and all bids and to accept the bid which they deem most favorable to the interest of FRSA after all Proposals have been examined and canvassed.

3.12 Insurance and Bonding

Contractor shall provide all necessary insurance and bonds required to complete the project. No more than ten (10) calendar days subsequent to FRSA's issuance of an award letter, the Contractor shall provide documentation to prove that he has obtained all required insurance and bonds. FRSA shall be the sole judge as to the acceptability of any such proof.

Contractor shall provide and maintain all insurance and bonds as required by FRSA.

<u>3.12.1 General</u>

The Contractor shall ensure that:

- 1. All insurance policies shall be specific to the project.
- 2. The insurance certificate shall state: This certifies that the insurance coverage meets or exceeds that required for Collection System Operations Facility Structural Steel Package, Capital Project No. 2217.
- 3. FRSA shall be named as Additional Insured in all policies; this shall include the Owners' Contractors' Protective Policy option.
- 4. All completed operations coverages and bonds shall remain in force for a period of two (2) years following acceptance of the Project and completed operations shall stay in force for two (2) years following completion of the Project.

3.12.2 Insurance

The Contractor shall, for the duration of the Contract and for two (2) years following project acceptance, maintain the following:

- 1. <u>General Liability</u>: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project or the general aggregate limit shall be twice the required occurrence limit. The Contractor shall provide "XCU" coverage.
- 2. <u>Automobile Liability</u>: \$1,000,000 combined single limit per accident for bodily injury and property damage including coverages for owned, hired or non--owned vehicles, as applicable.
- 3. <u>Workers' Compensation and Employers Liability</u>: Workers' Compensation limits as required by statute and Employers Liability limits of \$500,000 per accident and \$500,000 per disease.
- 4. <u>Umbrella</u>: \$2,000,000 per occurrence/aggregate for contracts valued at \$500,000 or over, or \$1,000,000 for contracts below \$500,000. \$10,000 is maximum allowable self-retained limit.
- 5. <u>Errors and Omissions</u>: If the Contractor performs professional services, he shall maintain errors and omissions insurance with a limit no lower than \$1,000,000 for the duration of the contract.

The policies shall contain, or be endorsed to contain, the following provisions in the General Liability and Automobile Liability Coverage's:

a. Unless otherwise provided in paragraph "c" of this section, FRSA, its officers, officials, employees and volunteers shall be covered as additional insureds as respects liability arising out of activities performed by or on insured's general supervision of the Contractor, products and completed operations of the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage

shall contain no special limitations on the scope of protection afforded to FRSA, its officers, officials, employees, volunteers, or agents.

- b. Unless otherwise provided in paragraph "c" of this section, the Contractor's insurance coverage shall be primary insurance as respects FRSA, its officers, officials, employees, volunteers, and agents. Any insurance or self-insurance maintained by FRSA, its officers, officials, employees, volunteers, or agents shall be excess of the Contractor's insurance and shall not contribute with it
- c. As an acceptable alternative to provisions "a" and "b" of this section, the Contractor may provide owner's and contractor's protective liability insurance with coverage limits, named insureds, and in conformity with all applicable specifications of this section.
- d. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to FRSA, its officers, officials, employees, volunteers, or agents.
- e. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- f. All Coverages Each insurance policy required by this clause shall not be suspended, voided, canceled by either party, reduced in coverage, or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to FRSA.

3.12.3 Best's Ratings

FRSA shall be the sole judge of whether or not said insurer's ratios are satisfactory. FRSA 's decision shall be final and FRSA 's bidding procedures contain no appeal provision.

- 1. <u>Alphabetical Rating</u>: For purposes of this Request for Bids, "insurer" shall mean any surety, insurance carrier, or other organization which proposes to provide an insurance policy or bond for the Contractor. No insurer or surety rated lower than "A-, Excellent" in the current *Best's Key Rating Guide* shall be acceptable to FRSA.
- 2. <u>Financial Size Rating</u>: Provided an insurer's alphabetical rating is satisfactory, FRSA will examine said insurer's financial size rating.

a. If <u>Best</u> classifies the insurer XII or larger, said insurer shall be acceptable to FRSA.

- 20b.
 - b. If <u>Best</u> classifies the insurer as smaller than XII, but larger than VI, said insurer shall be submitted to FRSA's Director of Management Services and/or FRSA's insurance consultant for review.

Financial Size ratings less than VII are not acceptable and will disqualify the Contractor.

3.12.4 Performance Bond and Labor & Materials Payment Bond Form

The Contractor shall provide a Performance Bond and Labor & Materials Payment Bond form acceptable to FRSA. The performance bond shall be a satisfactory surety such as Performance Bond, cash bond, irrevocable letter of credit, surety bond, or letter of commitment issued

by a bank, savings and loan association, surety, or insurance company and shall be for either 100% of the contract price or for the Contractor's unit price times the estimated number of units, as applicable.

This Request for Bids contains a Performance Bond and a Labor & Material Bond form for the Contractor's use.

If the Contractor fails to provide acceptable bonds within the specified time, he shall be in default.

3.12.5 Correction of Contractor's Insurance or Bond Deficiencies

If FRSA determines that the Contractor's insurance or bond documentation does not conform to these specifications, FRSA shall inform said Contractor of the non-conformity. If said Contractor fails to provide conforming insurance or bond documentation within five (5) calendar days of FRSA's deficiency notice, he shall be in default.

3.12.6 Indemnification Clause

Contractor shall protect, indemnify, hold and save harmless and defend FRSA, its officers, officials, employees, volunteers, and agents against any and all claims, costs, causes, actions and expenses, including but not limited to attorney's fees incurred by reason of a lawsuit or claim for compensation arising in favor of any person, including the employees, officers, independent contractors, or subcontractors of the Contractor or FRSA, on account of personal injuries or death, or damages to property occurring, growing out of, incident to, or resulting directly or indirectly from the performance by the Contractor or subcontractor, whether such loss, damage, injury or liability is contributed to by the negligence of FRSA or by premises themselves or any equipment thereon whether latent or patent, or from other causes whatsoever, except that the successful bidder shall have no liability for damages or the costs incident thereto caused by the sole negligence of FRSA.

The indemnification shall not be limited by a limitation on amount or type of damages payable by or for the Contractor or its subcontractor under any employee benefits act including, but not limited, to the Workers Compensation Act.

No inspection by FRSA, its employees, or agents shall be deemed a waiver by FRSA of full compliance with the requirements of the Contract. This indemnification shall not be limited by the required minimum insurance coverages in the Contract.

3.13 Tax Exemption

FRSA is exempt, by law, from paying bidder Federal Excise Tax and Illinois Retailers' Occupational Tax. Therefore, the bidder shall exclude those taxes from his bid. FRSA's tax exemption number is E9992-3696-06. The bidder shall include all applicable taxes in his bid price.

Proposal

Project:	Collection Systems Operations Facility Structural Steel Package Capital Project No. 2217		
Location:	The Operations Facility will be constructed on FRSA-owned properties north of FRSA's treatment plant (3333 Kishwaukee Street) and adjacent to Martin Road and Lyle Street.		
Completion I	Date: Structural steel shall be available for procurement no later than October 31, 2022.		
Liquidated D	amages: \$300/calendar day per beyond October 31, 2022		
To: Board of Trustees Four Rivers Sanitation Authority 3501 Kishwaukee Street Rockford, IL 61109			
(Individual, Partnership or Corporation, as case may be) (Address of Individual, Partnership or Corporation)			
Gentlemen:			
I (We), the undersigned, hereby propose to furnish all materials, equipment, tools,			
services, labor, and whatever else may be required to construct and place in service the above			
subject Sanitary Sewer for the Four Rivers Sanitation Authority all in accordance with the			

subject Sanitary Sewer for the Four Rivers Sanitation Authority all in accordance with the plans and specifications, provided by Four Rivers Sanitation Authority. The undersigned also affirms and declares:

1. That I (we), have, examined and am (are) familiar with all the related contract documents and found that they are accurate and complete and are approved by the undersigned.

2. That I (we), have carefully examined the site of the work, and that, from my (our) investigation, has satisfied myself (ourselves) as to the nature and location of the work, the character, quality, and quantity of materials and the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions and all difficulties to be encountered, and all other items which may, in any way, effect the work or its performance.

- 3. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same purposes, and is in all respects fair and without collusion or fraud; and that I (we) are not barred from bidding as a result of a bid-rigging or bid-rotating conviction.
- 4. That accompanying the Proposal is a Bidder's Bond in the amount specified in Article 1, Notice to Bidders, payable to the Board of Trustees of the Four Rivers Sanitation Authority, which it is agreed, shall be retained as liquidated damages by said Four Rivers Sanitation Authority if the undersigned fails to execute the Contract in conformity with the contract documents incorporated in the contract documents and furnish bond as specified, within ten (10) days after notification of the award of the contract to the undersigned.
- 5. The Bidder is of lawful age and that no other person, firm or corporation has any interest in this Proposal or in the Contract proposed to be entered into.
- 6. The Bidder is not in arrears to the Four Rivers Sanitation Authority, upon debt or contract, and is not a defaulter, as surety or otherwise, upon any obligation to the Four Rivers Sanitation Authority.
- 7. No officer or employee or person whose salary is payable in whole or in part by the Four Rivers Sanitation Authority is, shall be or become interested, directly or indirectly as a contracting party, partner, stockholder, surety of otherwise, in this Proposal, or in the performance of the Contract, or in the work to which it is relates, or in any portion of the profits thereof.
- 8. The Bidder which I represent complies with all applicable requirements of the Americans with Disabilities Act (ADA) and the Occupational Safety and Health Act (OSHA) and that if said bidder is awarded a contract, it will complete all OSHA-required or ADA-required employee and customer training, will make available all required information, and will hold harmless and indemnify the Four Rivers Sanitation Authority and the Four Rivers Sanitation Authority and the Four Rivers.

In regard to participation in an approved Apprenticeship program, upon request, Contractor will be required to provide written proof of participation.

- 9. The undersigned, as Bidder, declares that he has adopted and promulgated written sexual harassment policies in accordance with Public Act 101-0221 and will make this information available upon request.
- 10. The undersigned, as Bidder, declares he will comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on public works projects (including Four Rivers Sanitation Authority) to submit certified payroll reports via the State's Certified Transcript of Payroll Portal found at www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx.
- 10. The undersigned, as Bidder, declares he will comply with the Federal Drug Free Workplace Act.

- 12. The undersigned, as Bidder, declares he will comply with Public Act 83-1030 entitled "Steel Products Procurement Act".
- 13. The undersigned, as Bidder, declares he will comply with Public Act 96-929 (30 ILCS 570) regarding Illinois residents' employment.
- 14. The undersigned, as Bidder, declares he will comply with non-discrimination in employment in accordance with the Illinois Fair Employment Practices Commissions Rules & Regulations.
- 15. The undersigned, as Bidder, declares that he currently participates in an apprenticeship or training program that is registered with the United States Department of Labor's Bureau of Apprenticeship and Training or other acceptable State of Illinois Department of Labor monitored program.

In submitting this bid, it is understood that the right is reserved by the Four Rivers Sanitation Authority to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of thirty (30) days from the opening thereof.

The undersigned further declares that he (they) has (have carefully examined the following items of work and that the cost of all the work to complete this project is given in this Proposal.

Lump Sum Bid Amount

Total Amount of Lump Sum Bid, expressed in figures, for providing all materials, equipment, warranty, and labor to complete this project in conformity with all specifications in this Invitation to Bid.

\$

The undersigned hereby declares participation or nonparticipation in the Steel cost Adjustment Provision in accordance with the indications below:

	STEEL COST ADJUSTMENT
STEEL ITEM	<u>PROVISION</u>
	PARTICIPATION (YES OR NO)
Beams	
Columns	
Girders	
Joists	
Girts	
Steel Decking	

The undersigned acknowledges that he has received Addendum numbers _____, ____, _____, ____, and realizes that all Addenda are considered part of the Contract.

Date:	
Bidder:(Printed Name of Firm)	By: (Authorized Rep's Signature)
(Printed Street Address)	By: (Printed Authorized Rep's Nat
(Printed City, State, Zip)	By:(Printed Authorized Rep's Tit
(Area Code and Phone Number)	By: (Fax Number)

rized Rep's Name)

rized Rep's Title)

(Authorized Rep's Email Address)

Fair Employment Practices Affidavit of Compliance

Project: Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217

NOTE: THE BIDDER MUST EXECUTE THIS AFFIDAVIT AND SUBMIT IT WITH ITS SIGNED BID. THE FOUR RIVERS SANITATION AUTHORITY CANNOT ACCEPT ANY BID WHICH DOES NOT CONTAIN THIS AFFIDAVIT

, being first duly sworn, deposes and says that:				
(Ivanie of person making and avit)				
They are:	:(Officer's Title)	0	t	(Company Name)
that said annotate	company is and "Equal Opportunit d and Federal Executive Orders #1	y Employer" as defin 1375 which are inco	ed by Section 20 rporated herein b	00(e) of Chapter 21, Title 42 of the United States Code by reference;
and that Clause, R	said company will comply with a ules and Regulations, Illinois Depa	ny and all requireme artment of Human R	nts of Title 44 A ights, which read	dmin. Code 750. APPENDIX A – Equal Opportunity as follows:
"In the event of the contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Hur Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the contractor may be decl ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invo as provided by statute or regulation. During the performance to this contract, the contract ragrees as follows:				
1.	That it will not discriminate agai orientation, marital status, nation sexual orientation, military statu classifications to determine if mi rectify any such underutilization.	nst any employee or nal origin or ancestry s or an unfavorable o nority persons or wo	applicant for em y, citizen status, a lischarge from m omen are underu	nployment because of race, color, religion, sex, sexual age, physical or mental handicap unrelated to ability, ilitary service; and further that it will examine all job tilized and will take appropriate affirmative action to
2.	That, if he or she hires additional determine the availability (in accor from which he or she may reason in a way that minorities and wor	employees in order ordance with the Dep ably recruit and he o en are not underutili	to perform this a artment's Rules a r she will hire for zed.	contract or any portion of this contract, he or she will and Regulations) of minorities and women in the areas r each job classification for which employees are hired
3.	That, in all solicitations or advert all applicants will be afforded equa marital status, national origin or orientation, military status or an	sements for employ al opportunity witho ancestry, citizenshij infavorable discharg	ees placed by him ut discrimination p status, age, phy p from military se	n or her or on his or her behalf, he or she will state that a because of race, color, religion, sex, sexual orientation, ysical or mental handicap unrelated to ability, sexual ervice.
4.	That he or she will send to each collective bargaining or other agr contractor's obligations under th organization or representative fai and Rules and Regulations, the co employees from other sources wi	labor organization or eement or understan ee Illinois Human R ls or refuses to coop ntractor will prompt nen necessary to fulfi	representative of ding, a notice adv ights Act and th erate with the co dy so notify the D ll its obligations of	of workers with which he or she has or is bound by a vising such labor organization or representative of the e Department's Rules and Regulations. If any labor ntractor in his or her efforts to comply with such Act Department and the contracting agency and will recruit under the contract.
5.	That he or she will submit report may from time to time be request Human Rights Act and the Depa	s as required by the D ed by the Departmer tments Rules and Re	Pepartment's Rulent or the contractions.	es and Regulations, furnish all relevant information as ing agency, and in all respects comply with the Illinois
6.	That he or she will permit access t and the Department for purpos Department's Rules and Regulati	o all relevant books, es of investigation t ons.	records, accounts o ascertain comp	and work sites by personnel of the contracting agency oliance with the Illinois Human Rights Act and the
7.	That he or she will include verba any portion of the contract obl subcontractor. In the same mann applicable provisions of this claus Department in the event any subo utilize any subcontractor declared the State of Illinois or any of its po	tim or by reference the igations are underta er as with other prove se by such subcontract contractor fails or refu by the Illinois Huma colitical subdivisions of	he provisions of t iken or assumed isions of this con tors; and further uses to comply w an Rights Commi or municipal corp	this clause in every subcontract awarded under which l, so that the provisions will be binding upon the tract, the contractor will be liable for compliance with it will promptly notify the contracting agency and the ith the provisions. In addition, the contractor will not ission to be ineligible for contacts or subcontracts with portations.
(Source:	Amended at 32 I11. Reg. 16484, et	ffective September 2	3, 2008)"	
IL Dept o	f Human Rights Registration No.:			Expiration Date:
		Signature		

Subscribed and sworn to before me this _____ day of ____ _,20_

Notary Public

Fair Employment Practices Affidavit / Page 1 of 1

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we:

_____ (hereinafter called the Principal) and (hereinafter called the Surety) a Corporation chartered and existing under the laws of the State of _ _____and authorized to do business with its principal offices in the City of _ in the State of Illinois are held and firmly bound onto the Four Rivers Sanitation Authority (FRSA) of Winnebago County, Illinois, in the full and just sum of: FIVE PERCENT (5%) OF THE TOTAL BID PRICE good lawful money of the United States of America, to be paid upon demand of the FRSA, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents. WHEREAS, the Principal is about to submit, or has submitted to FRSA, a proposal for production of a red-iron structural steel package for a new operations facility including the fabrication of structural steel, storage at the fabricator's facility until ready for erection, and delivery to the project site as indicated in the Project Manual and on the Contract Drawings. WHEREAS, the Principal desires to file this bond, in accordance with law, to accompany this Proposal. NOW THEREFORE, The conditions of this obligation are such that if the Proposal be accepted, the Principal shall, within ten days after the date of receipt of a written notice of award of Contract, execute a Contract in accordance with the Proposal and upon the terms, conditions, and prices set forth therein, in the form and manner required by FRSA, and execute a sufficient and satisfactory Contract Performance Bond payable to said FRSA in an amount of one hundred percent (100%) of the Contract price (including alternates) in form and with security satisfactory to said FRSA, then this obligation to be void, otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid FRSA, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

Collection Systems Operations Facility Structural Steel Package Capital Project No. 2217

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this ______ day of ______.

		A
Principal		Ser
(Seal)	Drr	
	By	
	Name:	
	Title:	<u> </u>
	Date:	
Attest:	291.	,
Secretary		
Surety		
(Seal)		
	By	
	Name:	
	Title:	
20	Date:	
$\overline{\mathbf{A}}$		

Agreement

1. General

THIS AGREEMENT, made and concluded this _____ day of _

_____, 2022, between the Four Rivers Sanitation Authority (FRSA), Rockford, Illinois, acting by and through the Board of Trustees, and ______, his/their executors, administrators, successors or assigns:

2. Scope of Work

WITNESSETH: That for and in consideration of the payments and agreements made in the Proposal attached hereto, to be made and performed by FRSA and according to the terms expressed in the Bond referring to these presents, the Contractor agrees with FRSA at his/their own proper cost and expense to do all the work, furnish all equipment, materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of FRSA and its representative.

And it is also understood and agreed that the Bidding Requirements, Detailed Specifications, Contract Forms, General Conditions, General Requirements, Technical Specifications, Plans, Addenda, and provisions required by law are all essential documents of the contract, and are a part hereof, as if herein set out verbatim or as if attached, except for titles, subtitles, headings, table of contents and portions specifically excluded.

3. Contract Price

FRSA shall pay to the Contractor, and the Contractor shall accept, in full payment for the performance of this Contract, subject to any additions or deductions provided for hereby, in current funds, the Total Contract Price of and 00/100 (\$_____).

Payments are to be made to the Contractor in accordance with and subject to the provisions of Section 7 of this Agreement, which is a part of this Contract.

4. Bond

The Contractor has entered into and herewith tenders a bond of even date herewith, in the penal sum of ______ and 00/100 (\$______) to insure the faithful performance of this Contract, which said bond is hereby made a part of this Contract by reference.

5. Maintenance and Guarantee

The Contractor shall promptly repair, replace, restore or rebuild any imperfections that may arise and shall maintain satisfactory to FRSA all work for a period three years from the date of final acceptance of the Contract for trench settlement and for a period of two years all other work, except where periods of maintenance and guarantee are provided for. The Contractor shall, for this period, indemnify and save harmless the FRSA, its officers and agents from any injury done to property or persons as a direct or alleged result of imperfections in the Contractors' work, and shall immediately assume and take charge of the defense of such action or suits in like manner and to all intents and purposes as if said actions and suits had been brought directly against the Contractor.

If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged work promptly after receiving notice given by FRSA, the FRSA shall have the right to have the work done by others and to call on the Contractor and his bondsman to pay the costs thereof.

6. Contract Execution

IT IS EXPRESSLY UNDERSTOOD AND AGREED that the entire improvement shall be done in a thorough and workmanlike manner, under the direction and to the satisfaction of FRSA and in full compliance with all the requirements of its representative under them. All loss or damage arising out of the nature of the work to be done, or from any detention of unforeseen obstruction or difficulty which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.

The Contractor will be held responsible for all accidents, and hereby agrees to indemnify and protect FRSA from all suits, claims, and actions brought against it, and all cost, and damages which FRSA may be put to by reason of an injury or alleged injury, to the person or property of another in the execution of this contract, or the performance of the work, or in guarding the same, or for any material used in its prosecution or in its construction.

Any person employed on the work who shall refuse or neglect to obey the directions of FRSA or its representative, or who shall be deemed by FRSA to be incompetent, or who shall be guilty of any disorderly conduct, or who shall commit any trespass on any public or private property in the vicinity of the work, shall at once be removed from the work by the Contractor when so requested by FRSA.

Any request to extend the contract completion date must be considered by the Board at the Board meeting prior to the then-existing contract termination date. Any deviation from this action will result in the liquidated damage clause in the contract to be exercised.

7. Payments to Contractor

FRSA hereby covenants and agrees, in consideration of the covenants and agreements in this Contract, specified to be kept and performed by the Contractor and subject to the conditions herein contained, and if FRSA receives an acceptable invoice prior to the tenth day of the month and receives approval of the work by the FRSA's Director of Engineering, FRSA shall issue payment before the fifth day of the succeeding month. If FRSA receives an acceptable invoice on or after the tenth day of the month, FRSA shall issue payment before the fifth day of the second succeeding month.

FRSA reserves the right at all times to refuse to issue payment in case the Contractor has neglected or failed to pay any subcontractors, workmen or employee on the work.

8. Subcontracts

No part of the work herein provided for shall be sublet or subcontracted without the express consent of FRSA, to be entered in the records, and in no case shall consent relieve the Contractor from the obligation herein entered into, or change the terms of this Agreement.

9. Contractor's Responsibility

This Contract shall extend to and be binding upon the successors and assigns, and upon the heirs, administrators, executors, and legal representatives of the Contractor.

In consideration of and to induce the award of this Contract to him, the Contractor represents and warrants: that he is not in arrears to FRSA upon debt of the Contract and that he is not a defaulter, as surety, contractor or otherwise; that he is financially solvent and sufficiently experienced and competent to perform the work; that the work can be performed as called for by the Contract; that the facts stated in his proposal and the information given by him is true and correct in all respects, and that he is fully informed regarding all the conditions affecting the work to be done and labor and materials to be furnished for the completion of this Contract and that his information was secured by personal investigation and research.

The Contractor shall pay not less than the prevailing wage rate as determined by the Department of Labor, to all laborers, workmen and mechanics performing work under this Contract. Contractor shall comply with current revisions of the wage standards; as required by law. The Contractor shall be responsible for verifying the prevailing wages each month and notifying all subcontractors of the appropriate monthly rates. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: https://www2.illinois.gov/idol/Laws-

<u>Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx</u>. The Contractor is responsible for verifying current website

In regard to nondiscrimination in employment, Contractor will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations as provided herein.

The Contractor shall comply with the American Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify FRSA and their representatives from all:

(a) suits, claims, or actions;

(b) costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement, and;

(c) damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the contract.

Contractor shall also comply with Public Act 101-0221, which requires any party to a contract to adopt and enforce a written policy regarding sexual harassment that includes, as a minimum, the following information:

- (a) the illegality of sexual harassment
- (b) the definition of sexual harassment under Illinois State law;
- (c) a description of sexual harassment, utilizing examples;
- (d) my (our) organization's internal complaint process including penalties;
- (e) through the Illinois Department of Human Rights and the Illinois Human Rights Commission;
- (f) directions on how to contact the Department and the Commission; and 🌈
- (g) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.

Upon request this information will be provided to the Illinois Department of Human Rights. Upon FRSA award of a contract, FRSA will be provided this information described no more than ten working days after FRSA issues its award notification.

The Contractor shall comply with Public Act 96-929 (30 ILCS 570) which provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and further, that Illinois workers are available and capable of performing the particular type work involved.

The Contractor shall comply with all rules and regulations of OSHA during the execution of this Contract.

The Contractor shall comply with the Federal Drug Free Workplace Act.

The Steel Products Procurement Act, Illinois Public Act 83-1030, requires that steel products used or supplied in performance of this Contract or subcontract shall be manufactured or produced in the United States with three exceptions, as explained in the Instructions to Bidders.

The Contractor shall comply with Public Act 96-1416 regarding the disposal of CCDD and uncontaminated soil at CCDD fill sites as explained in the Instructions to Bidders.

10. Time

Work under this Agreement shall be commenced upon written Notice to Proceed. The completion date for this project shall be <u>October 31, 2022</u>.

11. Liquidated Damages

The amount of liquidated damages shall be \$300.00 per calendar day.

12. Counterparts

This Agreement may be executed and recorded in counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument. The Parties hereby acknowledge and agree that facsimile signatures or signatures transmitted by electronic mail in so-called "pdf" format shall be legal and binding and shall have the same full force and effect as if an original of this Agreement had been delivered. Each of the parties (a) intend to be bound by the signatures on any document sent by facsimile or electronic mail, (b) are aware that the other party will rely on such signatures, and (c) hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

13. Seals

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officers.



Labor & Material Payment Bond

ТО:	Contractor Name
	Contractor City, State
KNOW ALL MEN BY THESE PRESENTS	ŝ
That	(Contractor)
as Principal, and	
a corporation of the State of unto the Four Rivers Sanitation Authority, as Obl hereinafter defined in the amount of	as Surety, are held and firmly bound igee, for the use and benefit of claimants as
Dollar Principal and Surety bind themselves, their heirs assigns, jointly and severally, firmly by these prese	rs (\$), for the payment where of , executors, administrators, successors and ents.
WHEREAS, Principal has by written agree Contract with Obligee for contract documents prepared by the Four Rivers reference made a part hereof, and is hereinafter ref	ment dated20 Entered into a in accordance with Sanitation Authority which Contract is by erred to as "the Contract".
NOW, THEREFORE, THE CONDITION Principal shall promptly pay for all laborers, wor under the Contract, and not less than the general p character in the locality in which the work is perfor Department of Labor pursuant to the Illinois Com and for all material used or reasonably required for then this obligation shall be void; otherwise it sha	N OF THIS OBLIGATION is such that if ekers and mechanics engaged in the work prevailing rate of hourly wages of a similar rmed, as determined by the State of Illinois piled Statutes 280 ILCS 130 / 1-12 et.seq. or use in the performance of the Contract, ll remain in full force and effect.
1. A claimant is deemed as any person, firm, Principal or with any of Principal's subcon the performance of the Contract on accoun	, or corporation having contracts with the tractors for labor or materials furnished in t of which this Bond is given.
2. Nothing in this Bond contained shall be subcontractor, material man or laborer, or than it would have been liable prior to the e Act, approved June 20, 1931, as amended; claim for labor and materials furnished in t no right of action unless he shall have file Obligee within 180 days after the date of th last item of materials, which claim shall hav and address of the claimant, the business a Illinois, if any, or if the claimant be a foreig within the State the principal place of business	taken to make the Obligee liable to any to any other person to any greater extent nactment of The Public Construction Bond provided further, that any person having a the performance of the Contract shall have ed a verified notice of such claim with the ne last item of work or the furnishing of the we been verified and shall contain the name address of the claimant within the State of gn corporation having no place of business iness of the corporation, and in all cases of

partnership the names and residences of each of the partners, the name of the Contractor for the Obligee, the name of the person, firm or corporation by whom the claimant was employed or to whom such claimant furnished materials, the amount of the claim and a brief description of the public improvement for the construction or installation of which the contract is to be performed. No defect in the notice herein provided for shall deprive the claimant of its right of action under the terms and provisions of this Bond unless it shall affirmatively appear that such defect has prejudiced the rights of an interested party asserting the same.

- 3. No action shall be brought on this Bond until the expiration of 120 days after the date of the last item of work or of the furnishing of the last item of material except in cases where the final settlement between Obligee and the Contractor shall have been made prior to the expiration of the 120 day period, in which case action may be taken immediately following such final settlement; nor shall any action of any kind be brought later than 6 months after the acceptance by the Obligee of the work. Such suit shall be brought only in the circuit court of this State in the judicial district in which the Contract is to be performed.
- 4. Surety hereby waives notice of any changes in the Contract, including extensions of time for the performance thereof.
- 5. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
- 6. The Principal and Surety shall be liable for any attorneys' fees, engineering costs, or court costs incurred by the Obligee relative to claims made against this Bond.

*	\mathbf{v}
Signed and Sealed thisday of	,20
CONTRACTOR	SURETY
Contractor Firm Name	
By:Signature	By: Attorney-in-Fact Signature
Printed Name	Printed Name
Title	Resident Agent
ATTEST:	

Corporate Secretai	w (Corr	noratio	ns on	\mathbf{v}
Corporate Secretar	·yv	COL	poratio	110 0111	- y j

Performance Bond

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Four Rivers Sanitation Authority has awarded to: _____

hereinafter designated as the "Principal", a contract, dated, ______, for the Four Rivers Sanitation Authority.

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract (the "Bond");

NOW, THEREFORE, we the Principal and _____

as Surety, are firmly bound unto the Four Rivers Sanitation Authority in the penal sum of

Dollars (\$_______) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents for a performance bond. The conditions of this obligation is such that if the said Principal does well and faithfully performs all the conditions and covenants of said Contract, according to the true intent and meaning thereof, upon its part to be kept and performed, then the above obligation is to be null and void, otherwise to remain in full force and effect.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, including the provisions for liquidated damages in the said Contract, any changes, additions or alterations thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Four Rivers Sanitation Authority, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same and no inadvertent overpayment of progress payments shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications or of any inadvertent overpayment of progress payments. The Four Rivers Sanitation Authority shall be named as beneficiary on this Performance Bond.



IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this ______day of ______, 20_____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

SURETY

	65
Contractor Firm Name	050
By:	By:
Signature	Attorney-in-Fact Signature
Printed Name	Printed Name
Title	Resident Agent
ATTEST:	
Corporate Secretary (Corporations only)	
Zotto	



PROJECT MANUAL

(Rebid of Bid Doc No. 22-406) Collections Systems Operations Facility Structural Steel Package

Aottobettset

Rockford, IL

FRSA Capital Project No. 2217 BA Project No. 2021-13

Rivers

on Authority

Date 4-27-2022



400 North First Street Rockford, IL. 61107 Phone 815-227-0023 www.blakemore-architects.com

COVER PAGE

00 0110 - Table of Contents

PROCUREMENT AND CONTRACTING REQUIREMENTS

Notrobeusedforbidtinepunposes

SECTION 00 0101 PROJECT TITLE PAGE

PROJECT MANUAL

FOR

A E ARCHITECTS, INC I FIRST STREET ROCKFORD, ILLINOIS 61107 815-227-0023 WWW.BLAKEMORE-ARCHITECTS.COM (REBID OF BID DOC. NO. 22-406)

A ot to be the set end of

SECTION 00 0102 PROJECT INFORMATION

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

- A. Project Name: Collections Systems Operations Facility Structural Steel Package, located at: 3501 Kishwaukee Street, Rockford, Illinois
- B. Blakemore Architects's Project Number: 2022-13.
- C. Four Rivers Sanitation Authority (FRSA)'s Capital Project Number: 2217.
- D. The Owner, hereinafter referred to as Owner: Four Rivers Sanitation Authority
 1. Sales Tax Exemption Number: E999223696.

1.02 NOTICE TO PROSPECTIVE BIDDERS

- A. These documents constitute an Invitation to Bid to prospective Steel Fabricators to submit qualifications and proposals for the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site the following:
 - 1. Steel Columns with base and top plates
 - 2. Steel Girts
 - 3. Steel Beams
 - 4. Steel Barjoist and Girder Trusses (including bridging)
 - 5. Steel Deck
 - 6. Steel angles (for roof drain and over flows, HVAC/Exhaust Equipment and Roof Hatch)
 - 7. Steel angles for perimeter deck attachment or angle deck support at columns
 - 8. Steel Lintels
 - 9. Steel Channels
 - 10. Steel Gusset Plates
 - 11. All steel to steel connection plates and bolts
 - 12. Steel anchor bolts and setting plates
 - 13. Shop Drawings
- B. Notice Date: 04-27-2022.

1.03 PROJECT DESCRIPTION

- A. Summary Project Description: Struct. steel package for new building . Project known as Phase

 Phase II to be issued at later date and include proposals from General Contractors for
 construction of building. Selected steel fabricator will be assigned to the General Contractor.
- B. Phase II to include erection contractor as contracted through the General Contractor.

1.04 PROJECT CONSULTANTS

- A. Architect
 - Blakemore Architects, Inc
 - a. 400 North First Street
 - b. Rockford, Illinois 61107
 - c. Brian Blakemore-Principal in charge

. Structural Engineer

- 1. Core4 Engineering
 - a. 12308 North Corporate Parkway
 - b. Suite 300 Mequon, WI 53092
 - c. 1-262-236-9372
 - d. Brian Hess- Project Manager

1.05 PROCUREMENT TIMETABLE

A. Non-mandatory Pre-Bid confernece will be held on: May 10th, 2022 at 10:00 am via GoToMeeting. Login and dial-in information for the Pre-Bid Conference is listed below:

çe
- 1. From a computer, tablet or smart phone: https://meet.goto.com/856826293
- 2. Dail-in using a phone: (872)-240-3311, Access Code 856-826-293
- B. Bid Due Date: May 19, 2022, before 2:00 PM local time.
- C. Bid Opening: Same day, 2:00 pm local time.
- D. Bids May Not Be Withdrawn Until: 30 days after due date.
- E. Contract Time: To be stated in bid documents.
- F. Desired Final Delivery to Site Date: By October 31, 2022
- G. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.

1.06 PROCUREMENT DOCUMENTS

- A. Documents may be procured from Four Rivers Sanitaztion Authority
- B. Documents may be viewed at:
 - 1. Northern Illinois Building Contractors Association at 1111 S, Alpine Road in Rockford, Illinois.
 - 2. Contractors Association of Will & Grundy Counties at 233 N. Springfield Ave. Joliet, IL 60435-6509
 - 3. Greater Peoria Contractors & Suppliers Assoc.. at 1811 West Altorfer in Peoria, IL 61615
 - 4. Southern Illinois Builders Association at 1468 Green Mount Road P.O. Box 1390 in O'Fallon, IL 62223
 - 5. East Central Illinois Building & Construction Trades Counsil at 3301 N. Boardwalk P.O. Box 3932 in Champaign, IL 61820

END OF SECTION

6. Quincy Plan Room at 201 Broadway in Quincy, IL 62301

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

sot to be the the

SECTION 00 2113

INSTRUCTIONS TO BIDDERS

SUMMARY

1.01 THE INSTRUCTIONS IN THIS DOCUMENT AMEND OR SUPPLEMENT THE INSTRUCTIONS TO BIDDERS AND OTHER PROVISIONS OF THE BIDDING AND CONTRACT DOCUMENTS.

1.02 DOCUMENT INCLUDES

- A. Invitation
 - 1. **Bid Submission**
- ildino purposes 2. Work Identified in the Contract Documents
 - 3. **Contract Time**
- **Bid Documents and Contract Documents** B.
 - 1. Definitions
 - 2. **Contract Documents Identification**
 - Inquiries/Addenda 3.
- C. Qualifications
 - 1. Pregualification
 - Subcontractors/Suppliers/Others 2
- D. Bid Submission
 - 1. **Bid Depository**
 - Submission Procedure 2.
- E. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - 2 Acceptance of Offer
- **1.03 RELATED DOCUMENTS**

INVITATION

2.01 BID SUBMISSION

- A. Bids signed, executed, and dated will be received at the office of Four Rivers Sanitation Authority (FRSA) at 3501 Kishwaukee Street, Rockford, Illinois
- B. Offers will be opened publicly immediately after the time for receipt of bids.

2.02 INTENT

The intent of this Bid request is to obtain an offer for the production of a red-iron steel package Α. including the fabrication. Storage at fabricators yard until ready for erection and delivery to the project job site

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

Work of this proposed Contract comprises for the production of a red-iron steel package Α. including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site .

2.04 CONTRACT TIME

A The bidder, in submitting an offer, accepts the Contract Time period stated by FRSA for performing the Work. The completion date in the Agreement shall be October 31, 2022.

Owner requires that under the work of this contract be completed as quickly as possible and consideration will be given to time of completion when reviewing the submitted bids.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

A. Bid Documents: Contract Documents supplemented with Invitation To Bid and Instructions to Bidders.

B. Bid, Offer, or Bidding: Act of submitting an offer under seal.

3.02 CONTRACT DOCUMENTS IDENTIFICATION

A. The Contract Documents are identified as Project Number BA 2022-13, as prepared by Blakemore Architects who is located at 400 First Street, Rockford, Illinois 61107, and with contents as identified in the Project Manual and Drawings.

3.03 AVAILABILITY

- A. One sets of Bid Documents can be obtained by bidders upon receipt of a deposit, by cash, in the amount of \$50.00 for one set.
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

3.04 EXAMINATION

- A. Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting the FRSA Engineering Department at 815-387-7660.
- B. Bid Documents are on display at the offices of the following construction plan rooms:
 - 1. Northern Illinois Building Contractors Association-1111 S. Alpine Street, Rockford, Illinois.
 - 2. Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois by appointment.
 - Greater Peoria Contractors & Suppliers Association at 1811 West Altorfer in Peoria, IL 61615
 - 4. Southern Illinois Builders Association at 1468 Green Mount Road P.O. Box 1390 in O'Fallon, IL 62223
 - 5. East Central Illinois Building & Construction Trades Counsil at 3301 N. Boardwalk P.O. Box 3932 in Champaign, IL 61820
 - 6. Quincy Plan Room at 201 Broadway in Quincy, IL 62301
 - 7. Contractors Association of Will & Grundy Counties at 233 N. Springfield Ave. Joliet, IL 60435-6509
- C. Upon receipt of Bid Documents verify that documents are complete. Notify FRSA who will then notify Blakemore Architects should the documents be incomplete.
- D. Immediately notify FRSA who will then notify Blakemore Architects upon finding discrepancies or omissions in the Bid Documents.

3.05 INQUIRIES/ADDENDA

- A. Direct questions to Tyler Nelson at FRSA, telephone 815-387-7660 or email: TNelson@Fourrivers.illinois.gov
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients .

QUALIFICATIONS

4.01 EVIDENCE OF QUALIFICATIONS

A. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of financial position, license to perform work in the State.

BID SUBMISSION

BID ENCLOSURES/REQUIREMENTS

OFFER ACCEPTANCE/REJECTION

7.01 DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of thirty (30) days after the bid closing date.

7.02 ACCEPTANCE OF OFFER

- willisse to B. After acceptance by Owner, Blakemore Architects on behalf of Owner, will issue to the successful bidder, a written Bid Acceptance.
 END OF INSTRUCTIONS TO DIDEETED

SECTION 01 1000 SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Owner's Name: Four Rivers Sanitation Authority.
- B. Architects's Name: Blakemore Architects, Inc.
- C. The Project consists of the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site.

1.02 CONTRACT DESCRIPTION

A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

1.03 FUTURE WORK

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SECTION 01 3000 ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Number of copies of submittals.
- C. Requests for Interpretation (RFI) procedures.
- D. Submittal procedures.

1.02 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Conform to requirements of Section 01 7000 Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to FRSA who will distribute to Blakemore Architects:
 1. Requests for Interpretation (RFI).
 - 2. Shop drawings, product data, and samples.
 - 3. Applications for payment and change order requests.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 REQUESTS FOR INTERPRETATION (RFI)

- A. Definition: A request seeking one of the following:
 - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.

3.02 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:1. Shop drawings.
- B. Submit to FRSA who will distribute to Blakemore Architects for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below.

3.03 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 1. Shop Drawings.
- B. Submit for Blakemore Architects's knowledge as architect for Owner.

3.04 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - . Larger Sheets, Not Larger Than 36 by 48 inches: Submit the number of opaque reproductions that Contractor requires, plus two copies that will be retained by FRSA and Blakemore Architects.

3.05 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.

- a. Deliver submittals to FRSA who will distribute to Blakemore Architects at business address.
- 3. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
- 4. When revised for resubmission, identify all changes made since previous submission.
- Incomplete submittals will not be reviewed, unless they are partial submittals for distinct 5. portion(s) of the work, and have received prior approval for their use.
- B. Shop Drawing Procedures:
 - Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the 1. Contract Documents and coordinating related work.
 - 2. Do not reproduce the Contract Documents to create shop drawings.
 - Generic, non-project-specific information submitted as shop drawings do not meet the 3. requirements for shop drawings.
- C. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- D. When revised for resubmission, identify all changes made since previous submission.
- Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to E. comply with requirements.

END OF SECTION

Submittals not requested will not be recognized or processed F.

SECTION 05 1200 STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural steel framing members.
- B. Structural steel support members.

1.02 RELATED REQUIREMENTS

- A. Section 05 50 00 Metal Fabrications
- B. Section 05 31 00 Steel Decking: Support framing for small openings in deck.

1.03 REFERENCE STANDARDS

- A. AISC (MAN) Steel Construction Manual; 2011.
- B. AISC S303 Code of Standard Practice for Steel Buildings and Bridges; 2016.
- C. ASTM A36/A36M Standard Specification for Carbon Structural Steel; 2014.)
- D. <u>ASTM A53/A53M</u> Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- E. <u>ASTM A123/A123M</u> Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- F. <u>ASTM A500/A500M</u> Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
- G. <u>ASTM A514/A514M</u> Standard Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding; 2014.
- H. <u>ASTM A529/A529M</u> Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2014.
- I. <u>ASTM A563</u> Standard Specification for Carbon and Alloy Steel Nuts; 2007a (Reapproved 2014).
- J. <u>ASTM F3125/F3125M</u> Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- K. <u>ASTM F436/F436M</u> Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2016.
- L. <u>AWS A2.4</u> Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- M. AWS D1 1/D1 1M Structural Welding Code Steel; 2015.
- N. <u>IAS AC172</u> Accreditation Criteria for Fabricator Inspection Programs for Structural Steel; International Accreditation Service, Inc; 2011.
- O. <u>RCSC (HSBOLT)</u> Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2009.

1.04 SUBMITTALS

A.

B

See Section 01 30 00 - Administrative Requirements, for submittal procedures.

- Shop Drawings:
 - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
 - 2. Connections.
 - 3. Indicate cambers and loads.
 - 4. Indicate welded connections with <u>AWS A2.4</u> welding symbols. Indicate net weld lengths.

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- C. Welder's Certificates: "Upon request, certify welders employed on the Work, verifying AWS and Wisconsin Department of Safety and Professional Services, SPS 305 Licenses, Certifications and Registrations qualification within the previous 12 months
- D. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under <u>IAS AC172</u>.

1.05 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC "Steel Construction Manual."
- B. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with <u>IAS AC172</u>.
- C. Erector: Company specializing in performing the work of this section with minimum three years of experience.
- D. Design connections not detailed on the drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Steel Angles, Plates, Channels, and M Shapes: ASTM A36/A36M.
- B. Steel W Shapes and Tees: <u>ASTM A992/A992M</u>.
- C. Steel Shapes, Plates, and Bars: <u>ASTM A992/A992M</u>.
- D. Cold-Formed Structural Tubing: <u>ASTM A500/A500M</u>, Grade B.
- E. Steel Plate: ASTM A36/36M.
- F. Pipe: ASTM A53/A53M, Grade B, Finish black.
- G. High-Strength Structural Bolts, Nuts, and Washers: <u>ASTM F1554/F1554</u>, Grade 36, with matching compatible <u>ASTM A563</u> or <u>ASTM A563M</u> nuts and <u>ASTM F436/F436M</u> washers.
- H. Welding Materials: <u>AWS D1.1/D1 1M</u>; type required for materials being welded.
- I. Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

- A. Shop fabricate to greatest extent possible.
- B. Fabricate connections for bolt, nut, and washer connectors.
- C. Develop required camber for members.

2.03 FINISH

- A. Shop prime structural steel members. Do not prime surfaces that will be fireproofed, field welded, or in contact with concrete.
- B. Exposed Members: Galvanize structural steel members to comply with <u>ASTM A123/A123M</u>. Provide minimum 1.7 oz/sq ft galvanized coating.

2.04 SOURCE QUALITY CONTROL AND TESTS



High-Strength Bolts: Provide testing and verification of shop-bolted connections in accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts", testing at least 50 percent of bolts at each connection.

- B. Welded Connections: Visually inspect all shop-welded connections and test at least 50 percent of welds using one of the following:
 - 1. Radiographic testing performed in accordance with <u>ASTM E94</u>.
 - 2. Ultrasonic testing performed in accordance with ASTM E164.
 - 3. Liquid penetrant inspection performed in accordance with <u>ASTM E165/E165M</u>.
 - 4. Magnetic particle inspection performed in accordance with <u>ASTM E709</u>.

PART 3 EXECUTION

3.01 EXAMINATION

Verify that conditions are appropriate for erection of structural steel and that the work may A. properly proceed.

3.02 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

3.03 FIELD QUALITY CONTROL

- A. Welded Connections: Visually inspect all field-welded connections and test at least 50 beccent of welds using one of the following:
 - Radiographic testing performed in accordance with ASTM E94. 1.
 - Ultrasonic testing performed in accordance with ASTM E164. 2.
- with As Liquid penetrant inspection performed in accordance with ASTM E165/E165 3.
 - Magnetic particle inspection performed in accordance with ASTM E709.

SECTION 05 2100 STEEL JOIST FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Open web steel joists, with bridging, attached seats and anchors.
- B. Loose bearing members, such as plates or angles, and anchor bolts for site placement.
- C. Supplementary framing for roof openings greater than 18 inches.

1.02 RELATED REQUIREMENTS

- A. Section 05 12 00 Structural Steel Framing: Superstructure framing.
- B. Section 05 31 00 Steel Decking: Support framing for openings less than 18 inches in decking.
- C. Section 05 50 00 Metal Fabrications: Non-framing steel fabrications attached to joists.

1.03 REFERENCE STANDARDS

- A. ASTM A563 Standard Specification for Carbon and Alloy Steel Nuts; 2007a (Reapproved 2014).
- B. ASTM E164 Standard Practice for Contact Ultrasonic Testing of Weldments; 2013.
- C. ASTM F3125/F3125M Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- D. AWS D1.1/D1.1M Structural Welding Code Steel; 2015.
- E. IAS AC172 Accreditation Criteria for Fabricator Inspection Programs for Structural Steel; International Accreditation Service, Inc; 2011.
- F. SJI Technical Digest No. 9 Handling and Erection of Steel Joists and Joist Girders; 2008.
- G. SSPC-Paint 15 Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).
- H. SSPC-SP 2 Hand Tool Cleaning; 1982 (Ed. 2004).

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate standard designations, joist coding, configurations, sizes, spacings, cambers, locations of joists, joist leg extensions, bridging, connections, and attachments.

1.05 QUALITY ASSURANCE

- A. Design connections not detailed on the drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.
- B. Perform Work, including that for headers and other supplementary framing, in accordance with SJI (SPEC) Standard Specifications Load Tables and SJI Technical Digest No. 9.
- C. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.

1.06 DELIVERY, STORAGE, AND HANDLING

Transport, handle, store, and protect products to SJI requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steel Joists:
 - 1. Canam Group Inc: www.canam-steeljoists.ws
 - 2. CMC Joist: www.cmcjoist.com.
 - 3. New Millennium Building Systems: www.newmill.com
 - 4. Nucor-Vulcraft Group: www.vulcraft.com.

2.02 MATERIALS

- A. Open Web Joists: Types as indicated on drawings:
 - Minimum End Bearing on Steel Supports: Comply with referenced SJI standards. 1.
 - Minimum End Bearing on Masonry or Concrete Supports: Comply with referenced SJI 2.
 - standards. Finish: Shop primed. 3.
- High-Strength Structural Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, with B. matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436/F436M washers.
- Structural Steel For Supplementary Framing and Joist Leg Extensions: ASTM A36/A36M. C.
- D. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- E. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

2.03 FABRICATION

- A. Drill holes in chords for attachment of wood nailers where indicated.
- Frame special sized openings in joist web framing as detailed. B.

2.04 FINISH

- A. Shop prime joists as specified.
 - Do not prime surfaces that will be field welded. 1.
- Prepare surfaces to be finished in accordance with SSPC В.

2.05 SOURCE QUALITY CONTROL

A. Provide shop testing of steel components per SJI recommendations.

PART 3 EXECUTION

3.01 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- ue B. Maximum Offset From True Alignment: 1/4 inch.

END OF SECTION

SECTION 05 3100 STEEL DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Roof deck.
- B. Supplementary framing for openings up to and including 18 inches.
- C. Bearing plates and angles.

1.02 RELATED REQUIREMENTS

- A. Section 05 1200 Structural Steel Framing: Support framing for openings larger than 18 inches and shear stud connectors.
- B. Section 05 2100 Steel Joist Framing: Support framing for openings larger than 18 inches and shear stud connectors.

1.03 REFERENCE STANDARDS

- A. AWS D1.3/D1.3M Structural Welding Code Sheet Steel; 2008.
- B. FM (AG) FM Approval Guide; Factory Mutual Research Corporation; current edition.
- C. SDI (DM) Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- D. SSPC-Paint 15 Steel Joist Shop Primer/Metal Building Primer, 1999 (Ed. 2004).
- E. SSPC-Paint 20 Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

1.04 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittals procedures.
- B. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories
- C. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
- D. Submit manufacturer's installation instructions.
- E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

1.05 QUALITY ASSURANCE

- A. Design deck layout, spans, fastening, and joints under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.
- B. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.

1.06 DELIVERY, STORAGE, AND HANDLING

Cut plastic wrap to encourage ventilation.

Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

PART 2 PRODUCTS

Β.

2.01 MANUFACTURERS

- A. Steel Deck:
 - 1. Canam Steel Corporation; .: www.canam-steeljoists.ws.
 - 2. Vulcraft/Nucor Corporation: www.vulcraft.com.
 - 3. Wheeling Corrugating Co: www.wheelingcorrugating.com.

2.02 STEEL DECK

- A. Roof Deck: Non-composite type, fluted steel sheet.1. See Structural Drawings for requirements.
- B. Primer: Shop coat of manufacturer's standard primer paint over cleaned and phosphatized substrate.
- C. Side Joints: Lapped, mechanically fastened as indicated on Drawings
- D. End Joints: Lapped, fastened as indicated on Drawings.

2.03 ACCESSORY MATERIALS

- A. Bearing Plates and Angles: ASTM A36/A36M steel, unfinished.
- B. Welding Materials: AWS D1.1/D1.1M.
- C. Fasteners: Galvanized hardened steel, self tapping. See Drawings.
- D. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
- E. Weld Washers: Mild steel, uncoated, 3/4 inch outside diameter, 1/8 inch thick
- F. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.

2.04 FABRICATED DECK ACCESSORIES

A. Roof Sump Pans: Formed sheet steel, 14 gage, 0.0747 inch minimum thickness, flat bottom, sloped sides, recessed 1-1/2 inches below roof deck surface, bearing flange 3 inches wide, sealed watertight.



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SECTION 05 5000 METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Shop fabricated steel items, including:
 - 1. Columns and base plates
 - 2. Lintels
 - 3. Other metal fabrications shown on Drawings.

1.02 REFERENCE STANDARDS

- A. ASTM A53/A53M Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- B. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- C. ASTM A283/A283M Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2013.
- D. ASTM A501/A501M Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
- E. ASTM F3125/F3125M Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- F. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- G. AWS D1.1/D1.1M Structural Welding Code Steel, 2015.
- H. SSPC-Paint 20 Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).
- I. SSPC-SP 2- Hand Tool Cleaning; 1982 (Ed. 2004).

1.03 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
- C. Welder's Certificates: "Upon request, certify welders employed on the Work, verifying AWS and Wisconsin Department of Safety and Professional Services, SPS 305 Licenses, Certifications and Registrations qualification within the previous 12 months
- D. Weld Procedure Qualification Test Records: Submit successful test record of welder performing welds for joints used that are not pre-qualified by AISC.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

- A Steel Beams: S or W shapes, ASTM A 992
- B. Steel Sections: ASTM A36/A36M.
- C. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- D. Plates: ASTM A 283; Grade D
- E. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.
- F. Bolts, Nuts, and Washers: ASTM F3125/F3125M , Type 1, plain.
- G. Welding Materials: AWS D1.1/D1.1M ; type required for materials being welded.

- H. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
- I. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints but tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located consistent with design of component, except where specifically noted otherwise.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

- A. Ledge Angles, Shelf Angles, Channels, and Plates Not Attached to Structural Framing: For support of joists and masonry; galvanized finish.
- B. Lintels: As detailed; prime paint finish.

2.04 FINISHES - STEEL

- A. Prime paint steel items.
 - 1. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- D. Prime Painting: One coat (Gray).
- E. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.
- F. Galvanizing of Non-structural terms: Galvanize after fabrication to ASTM A123/A123M requirements.

2.05 FABRICATION TOLERANCES

- A. Squareness: 1/8 incl maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

END OF SECTION





New Collection Systems Operation Facility Structural Steel Package

for





Date: 04-27-22 Project: 21-13

Issued for Bids

 $\frac{184-003342}{184-003342}$

ARCHITECT SEAL



SHEET INDEX

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S502	STEEL JOIST SECTIONS & I

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DETAILS ETAILS ILS DETAILS



















ELE	EVATION KE
1)	INSULATED ME
2)	INSULATED ME
3)	CORRUGATED BRONZE"
4)	METAL COPING
5)	METAL COPING
6)	STONE WATER
7)	EXTERIOR CMU
8)	EXTERIOR BRIG
9)	EXTERIOR HOL MATCH "T.B.D."
10)	O.H. DOORS: P.
11)	CITADEL SINOC "SILVER GREY"
12)	PIPE BOLLARD

- METAL PANEL: COLOR "MEDIUM G: PAINT TO MATCH "SANDSTONE"
- G: PAINT TO MATCH "DOVE GRAY"
- R TABLE: COLOR "T.B.D." IU: COLOR "T.B.D."
- RICK VENEER: COLOR "T.B.D." LLOW METAL DOORS: PAINT TO
- PAINT TO MATCH "MEDIUM BRONZE"
- CORE METAL PANEL SYSTEM COLOR: D: COLOR "T.B.D."

11' - 11" 6' - 0" 2' 6"

8



→{1}**→**















1 North-South Building Section 1/8" = 1'-0"







STRUCTURAL SHEET INDEX						
Sheet Number	Sheet Name					
S000	3D VIEWS AND TITLE SHEET					
S001	GENERAL NOTES					
S002	SCHEDULES					
S101	FOUNDATION PLAN - OVERALL					
S101A	FOUNDATION PLAN - AREA A					
S101B	FOUNDATION PLAN - AREA B					
S102	ROOF FRAMING PLAN - OVERALL					
S102A	ROOF FRAMING PLAN - AREA A					
S102B	ROOF FRAMING PLAN - AREA B					
S200	STEEL ELEVATIONS					
S300	CONCRETE SECTIONS & DETAILS					
S400	MASONRY SECTIONS & DETAILS					
S500	STEEL SECTIONS & DETAILS					
S520	STEEL JOISTS SECTIONS & DETAILS					

DOCUMENTS PROVIDE A GENERAL REPRESENTATION OF THE STRUCTURAL MODEL ONLY. THESE VIEWS ARE NOT DESIGNED TO SHOW EVERY DETAILED ASPECT, AND MAY NOT BE FULLY ACCURATE. PLEASE REVIEW THE PLANS, SECTIONS, AND DETAILS FOR THE COMPLETE STRUCTURAL REQUIREMENTS. IF DISCREPANCIES EXIST, THE 3D VIEWS WILL NEVER CONTROL.

DISCLAIMER: 3D MODEL VIEWS DISPLAYED THROUGHOUT CONSTRUCTION



DESIGN CRITERIA

1. BUILDING CODE - INTERNATIONAL BUILDING CODE (IBC) 2015 / ASCE7-10

2.	DEAD LOADS		
	ROOF	20 PSF	
3. 4.	ROOF LIVE LOADS FLOOR LIVE LOADS	20 PSF	
	CORRIDORS	100 PSF	
	PUBLIC AREAS	100 PSF	
	STORAGE (LIGHT)	125 PSF	
	STORAGE (HEAVY)	250 PSF	
_	GARAGES	50 PSF	
5.	SNOW LOADS		
		30 PSF	
	TEMPERATURE FACTOR Ct	1.0	
	SLOPED ROOF FACTOR, Cs	1.0	
	IMPORTANCE FACTOR, Is	1.1	
	FLAT ROOF SNOW, Pf	25.4 PSF	
	SLOPED ROOF SNOW, Ps	25.4 PSF	
	SLIDING & DRIFTING SNOW, IN ADDITION TO FI	LAT ROOF SNOW, SEE PLANS	
	UNBALANCED SNOW PER ASCE 7		
6.	WIND LOADS		
	ULTIMATE WIND SPEED, V	120 MPH	
		L +0.18	
	COMPONENTS & CLADDING NOT DESIGNED BY	THE ENGINEER OF RECORD SHALL BE	:
	DESIGNED FOR THE WIND PRESSURES SHOW	'N ON THE COMPONENTS AND CLADDING	G
	DIAGRAM. WIND PRESSURES FOR LARGER TR	BUTARY AREAS MAY BE USED BASED C	٦C
	DELEGATED DESIGN CALCULATIONS.		
7.	SEISMIC LOADS		
		105	
	SITE CLASS	1.25 D	
	MAPPED SPECTRAL RESPONSE	D	
	Ss	0.124 g	
	S1	0.058 g	
	SPECTRAL RESPONSE COEFFICIENTS		
	SDS	0.132 g	
	SD1	0.093 g	
	SEISMIC DESIGN CATEGORY	B	
	SEISMIC FORCE RESISTING SYSTEM		
		FRAMES	
	RESPONSE MODIFICATION FACTOR. R	3.25	
	RESPONSE COEFFICIENT, Cs	0.051	
	DESIGN BASE SHEAR	Cs x (WEIGHT OF BUILDING	G)
	ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORC	Έ
8.	SOIL DESIGN VALUES		
	REFERENCE GEOTECHNICAL REPORT No. 22-0	G0297	
	PEPARED BY GEOCON PROFESSIONAL SERVIC	CES, LLC DATED 02/17/2022	
	LATERAL FARTH DRESSLIRE:	120 PCF	
	ACTIVE (RETAINING WALLS)	45 PSF/FT	
	AT-REST (BASEMENT WALLS)	60 PSF/FT	
	PASSIVE) BEARING PRESSURE LATERAL	150 PSF/FT	
	ALLOWABLE SOIL BEARING PRESSURES		
	VERTICAL (NET)	3,000 PSF	
	LATERAL SLIDING RESISTANCE		
	COEFFICENT OF SLIDING FRICTION	0.25	
		N/A PSF	
	SUBGKADE MUDULUS		

	GE		8	
00 2015 / 40057 40	1		= IMENTS REPRESENT THE FINISHED ST	RUCTURE THEY
5C) 2015 / ASCE7-10		DO NOT INCLUDE THE	METHOD OF CONSTRUCTION. CONTR.	ACTOR SHALL
20 PSF		CONSTRUCTION. SUC	H MEASURES SHALL INCLUDE, BUT NO	OT BE LIMITED TO:
20 PSF		BRACING, SHORING FO	DR LOADS DUE TO CONSTRUCTION EC JRES, AND PARTIALLY COMPLETED W	QUIPMENT, ORK.
100 PSF		OBSERVATION VISITS INCLUDE INSPECTION	TO THE SITE BY STRUCTURAL ENGINE OF THE ABOVE ITEMS.	ER SHALL NOT
100 PSF 125 PSF	2.	GENERAL CONTRACTORS	OR TO DISTRIBUTE ALL SHEETS IN THE	SET TO
250 PSF	3.	THE ARCHITECT AND/	OR ENGINEER OF RECORD SHALL NOT	
50 F 5F		FOR CONSTRUCTION I	MEANS, METHODS TECHNIQUES, SEQU	JENCES, OR
30 PSF 1.0		PROCEDURES, OR FO	R SAFETY OR SAFETY PRECAUTIONS A VY CONSTRUCTION ACTIVITIES, SINCE	AND PROGRAMS IN THESE ARE
1.1	4.	SOLELY THE CONTRAC	CTOR'S RESPONSIBILITY. ED BY SUBCONTRACTORS SHALL BE R	EVIEWED BY
1.0	5	CONTRACTOR PRIOR	TO SUBMITTING TO ARCHITECT/ENGIN	EER. S AT THE JOB SITE
25.4 PSF 25.4 PSF	0.	ANY DISCREPANCIES I	BETWEEN THE CONDITIONS FOUND A	ND THOSE
OF SNOW, SEE PLANS		ATTENTION OF ARCHI	TECT PRIOR TO PROCEEDING WITH TH	IE WORK.
	6.	SEE DOCUMENTS FRO)M OTHER DISCIPLINES FOR FLOOR, \ S, PITS, PIPE SLEEVES, EQUIPMENT PA	NALL, AND ROOF
120 MPH	7.	STAIRS, MISCELLANEC)US IRON, ETC. DUCTS, CHASES, ETC. IN STRUCTURA	L BEAM AND
li C		COLUMN MEMBERS. D	O NOT CUT ANY STRUCTURAL MEMBE NOTED OTHERWISE, NOTIEY STRUCT	ER FOR PIPES, URAL ENGINEER
±0.18 NGINEER OF RECORD SHALL BE		WHEN DOCUMENTS B	Y OTHER DISCIPLINES SHOW OPENING	SS, POCKETS, ETC.
E COMPONENTS AND CLADDING		STRUCTURAL MEMBER	RS. CONTRACTOR SHALL OBTAIN PRIC	R APPROVAL
		CHASES, ETC.	NGINEER FOR INSTALLATION OF SUCF	1 PIPES, DUCTS,
	8.	DETAILS LABELED "TY SITUATIONS OCCURRI	PICAL" ON THE STRUCTURAL DRAWING NG ON PROJECT THAT ARE THE SAME	GS APPLY TO ALL OR SIMILAR TO
Ш		THOSE LOCATIONS SF	PECIFICALLY INDICATED. WHERE A DE	TAIL IS NOT SIMILAR
1.25 D	0	CONDITIONS.		
-	ອ.	PROFESSIONAL ENGIN	VED ELEMENTS SHALL DE DESIGNED B	ERE THE PROJECT
0.124 g 0.058 g		DATA, SUPPORT READ	TIONS, AND CERTIFICATION THAT ELE	MENTS WERE
- 0 132 a		DESIGNED FOR LOADS BUILDING CODE. ALL D	3 SPECIFIED IN THE CONTRACT DOCUN OCUMENTS NOTED SHALL BE SEALED	MENTS OR IN THE DBY THE
0.132 g 0.093 g		LICENSED ENGINEER.	IF CRITERIA INDICATED ARE NOT SUF	FICIENT, SUBMIT A
B STEEL ORDINARY		FOLLOWING ELEMENT	'S AND THEIR CONNECTIONS SHALL BE	CONTRACTOR
CONCETRICALLY BRACED		A. STRUCTURAL	STEEL CONNECTIONS NOT DETAILED	OR SHOWN ON
3.25		B. STEEL JOIST &	S JOIST GIRDERS	
		C. STEEL STAIRS D. STRUCTURAL	& HANDRAILS COLD-FORMED FRAMING INCLUDING E	XTERIOR WALLS
EQUIVALENT LATERAL FORCE		E. PREFABRICATI	ED EXTERIOR CANOPIES & BALCONIES	3
	<u>SP</u>	READ FOUNDATIONS		
C DATED 02/17/2022	1.	ALL FOUNDATIONS SH SUBGRADE OR APPRO	ALL BE SUPPORTED ON APPROVED EX VED COMPACTED STRUCTURAL FILL I	XISTING HAVING A MINIMUM
120 PCF	2.	ALLOWABLE BEARING SUBSURFACE CONDIT	CAPACITY AS INDICATED IN THE SOIL IONS SHALL BE IMPROVED TO MEET C	DESIGN VALUES. APACITY WHEN
45 PSE/FT	3	REQUIRED, AS RECOM	IMENDED IN GEOTECHNICAL REPORT.	
60 PSF/FT	5.	SUBSURFACE CONDIT	IONS DESCRIBED IN THE DRAWINGS, S	SPECIFICATIONS,
150 PSF/FT		ASSIST THE CONTRAC	TOR DURING BIDDING AND SUBSEQUE	INCLUDED TO
3,000 PSF		CONSTRUCTION, AND LOCATIONS AT THE PA	TO REPRESENT CONDITIONS ONLY AT ARTICULAR TIME THE OBSERVATIONS 1	SPECIFIC WERE MADE.
0.25	4.	ALL EXTERIOR FOUND MINIMUM DEPTH OF 4'	ATIONS SHALL BEAR ON APPROVED S	UBGRADE AT R GRADE
N/A PSF 100 PCI	5.	FOOTING ELEVATIONS	SHOWN ON THE DRAWINGS REPRES	
	0	EXCAVATION REQUIRE	ED TO REACH SUITABLE BEARING MAT	ERIAL.
	6.	EXCAVATIONS AS REC	ALL PROVIDE TEMPORARY SOPPORTS	VEMENT OR
		VERTICAL SETTLEMEN WILL ENDANGER LIVE	IT OF SURROUNDING SOIL AND/OR PR S OR PROPERTY.	OPERTY WHICH
	7.	THE CONTRACTOR SH WATER PROMPTLY TO	ALL PROVIDE CONTROL OF SURFACE	AND SUBSURFACE
	8	IN A DRY CONDITION.	NOT BE PLACED ON FROZEN SUBGRA	DE
	9.	THE CONTRACTOR SH	IALL PROTECT IN-PLACE FOUNDATION	S AND SLABS-ON-
	10.	FOUNDATION WALLS S	SHALL BE BRACED DURING BACKFILLIN	IG AND
		COMPACTION OPERAT	TIONS / BRACING SHALL BE LEFT IN PL/ JRAL SUPPORT SYSTEM IS INSTALLED	ACE UNTIL AND APPROVED
	11.	BY THE ENGINEER. WHERE FOUNDATION	WALLS HAVE FILL ON BOTH SIDES, BA	CKFILLING SHALL
		BE DONE SIMULTANE	OUSLY ON BOTH SIDES OF THE WALL.	
	<u>CC</u>			
		CODES: ACI301 SPEC	IFICATION FOR STRUCTURAL CONCRE	TF
	C	ACIMCP MANU	JAL OF CONCRETE PRACTICE	
•		ACI 318 BUILD	<i>XING CODE REQUIREMENTS FOR REIN</i> CRETE	FORCED
	3	ACI 318.1 BUILD	NING CODE REQUIREMENTS FOR STRU	ICTURAL PLAIN
\sim				
		FOOTINGS		f'c=3.000 PSI
		INTERIOR SLAB ON G	JRADE	f'c=4,000 PSI
~~~~		EXTERIOR SLAB ON C	GRADE (EXCLUDING SIDEWALKS)	f'c=5,000 PSI
$\sim$		BEAMS / COLUMNS	GRADE BEAMS / FIERS	f'c=4,000 PSI
		CONCRETE ON META	AL DECK	f'c=4,000 PSI
K ·	1			TC=4,000 PSI
20	1.	RATIO, AIR ENTRAINM	ENT, ADMIXTURES, SLUMP AND HISTO	RY OF BREAK
Y		COMMENCEMENT OF	ANY WORK. CONCRETE SHALL BE NO	PRIOR TO THE RMAL WEIGHT
Ŧ	2.	UNO. MAXIMUM WATER/CEM	IENT RATIO PERMITTED SHALL BE 0.50	) FOR INTERIOR
		SLABS ON GRADE, 0.4 CONCRETE EXPOSED	5 FOR BELOW GRADE CONCRETE AND TO WATER AND DEICING CHEMICALS	0.40 FOR
	3.	CONCRETE WHICH WI	LL BE EXPOSED TO THE WEATHER (IN SHALL HAVE AIR ENTRAINING ADMINT	
	,	REQUIRED TO PROVID	E = 100 E =	
	4.	BEAMS & COLUMNS, 1	E SIZE SHALL BE 3/4" FOR SLABS ON G	RADE, WALLS, IG SLABS.
		NORMAL WEIGHT AGO AGGREGATE TO CONF	FORM TO ASTM C33, FORM TO ASTM C33,	LIGHTWEIGHT
	5.	CONCRETE SHALL BE	EVALUATED ACCORDING TO METHOD	1 OR METHOD
	e	SUBMITTED TO THE ECONTRACTOR SU	OR FOR APPROVAL PRIOR TO ANY WO	
	0.	TESTING AGENCY TO	CAST 4 TEST CYLINDERS FOR EACH 50	CUBIC YARDS
		OF CONCRETE PLACE AGENCY SHALL BE RE	ט, טא דטא ANY DAY'S OPERATION. TH SPONSIBLE FOR CASTING AND CURIN	IE TESTING G SPECIMENS
		IN COMPLIANCE TO AS COMPLIANCE TO ASTA	TM C31 AND CASTING TESTING SPECI A C39.	MENS IN
	7.	DRAWINGS SHOWING	THE LOCATION OF CONSTRUCTION JC	DINTS,

CONTROL JOINTS, AND PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PREPARATION OF REINFORCING SHOP DRAWINGS. MAXIMUM POUR LENGTHS OF WALLS TO BE 40'-0" AND A MINIMUM OF 4'-0" AWAY FROM INTERSECTIONS AND CORNERS. . GROUT USED TO SET PLATES SHALL BE NON-SHRINK AND NON-METALLIC.

THE CONTRACTOR SHALL USE SMOOTH FORMS FOR EXPOSED CONCRETE SURFACES. BOARD FORMS MAY BE USED FOR UNEXPOSED CONCRETE SURFACES. EARTH FORMS ARE FORBIDDEN. 10. PROVIDE A MINIMUM OF 6" OF COMPACTED GRANULAR FILL UNDER ALL

SLABS ON GRADE. 11. VAPOR BARRIER TO BE 10 MILS THICKNESS MINIMUM, LAP MINIMUM 6" AND TAPE ALL SEAMS. VERIFY ADDITIONAL REQUIREMENTS WITH ARCHITECT. 12. FLOOR FLATNESS AND LEVELNESS OF SLAB ON GRADE CONCRETE SHALL HAVE THE FOLLOWING TOLERANCES, AS RECOGNIZED BY THE MOST CURRENT VERSION OF ASTM E 1155 AND ACI 302.1. SEE SPECIFICATION FOR FURTHER REQUIREMENTS (F(F) SPECIFIED OVERALL VALUE (SOV) OF 50, MINIMUM LOCALIZED VALUE (MLV) OF 25 AND F(L) SPECIFIED OVERALL

VALUE (SOV) OF 33, MINIMUM LOCALIZED VALVE (MLV) OF 17).

# **CONCRETE REINFORCING**

CONCRETE

CODES:

ACI 315

ACI 318

AWS D1.4

MSP2

WRI

TURE. THEY R SHALL URE DURING LIMITED TO: /IENT,
HALL NOT
ТО
E CONTROL ANY WAY ES, OR ROGRAMS IN E ARE
VED BY
THE JOB SITE. IOSE TO THE ORK. , AND ROOF IETAL PAN
AM AND R PIPES, ENGINEER

FED IN THE

PROVAL ES, DUCTS, PPLY TO ALL SIMILAR TO S NOT

ENSED THE PROJECT SIGN LOAD S WERE S OR IN THE T, SUBMIT A

GN VALUES. CITY WHEN

OF THE IFICATIONS, UDED TO

UBSURFACE PERFORMED

MATERIALS: REINFORCING BARS ASTM A615 Gr 60 Fy=60 KSI ASTM A185 WELDED WIRE FABRIC MACRO FIBER REINFORCING ASTM C1116 Type III 1. THE REINFORCEMENT FABRICATOR SHALL PROVIDE AND SCHEDULE ON SHOP DRAWINGS ALL REQUIRED REINFORCING STEEL AND NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN PLACE AT THE CORRECT LOCATIONS. 2. THE REQUIRED CLEARANCE FOR REINFORCEMENT (UNO) SHALL BE 3" FOR CONCRETE PLACED DIRECTLY AGAINST EARTH, 2" (#6 & LARGER) AND 1 1/2" (#5 & SMALLER) FOR CONCRETE EXPOSED TO EARTH OR WEATHER, 1 1/2" (# 14 & LARGER) AND 3/4" (#11 & SMALLER) FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER. 3. THE CONTRACTOR SHALL REFER TO TYPICAL DETAILS SHOWN ON THE CONTRACT DRAWINGS FOR ADDITIONAL REINFORCING REQUIREMENTS. 4. WHERE REINFORCEMENT IS REQUIRED IN SECTIONS, REINFORCEMENT IS CONSIDERED TYPICAL WHERE EVER THE SECTION APPLIES. CKETS, ETC. 5. WELDED WIRE FABRIC SHALL HAVE A MINIMUM OF 6" LAP AND BE TIED TOGETHER. 6. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF COMPLETION OF REINFORCEMENT INSTALLATION AND ALLOW AT LEAST 24 HOURS BEFORE SCHEDULED CONCRETE PLACEMENT FOR THE ARCHITECT TO INSPECT REINFORCEMENT. REINFORCED MASONRY CODES: ACI 530.1/ASCE 6/TMS 602 SPECIFICATION FOR MASONRY STRUCTURES ACI 530/ASCE 5/TMS 402 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES MATERIALS: CONCRETE MASONRY BLOCK ASTM C-90 2,000 PSI TYPE M/S MORTAR ASTM C270 GROUT (28 DAY STRENGTH) ASTM C476 2,000 PSI REINFORCING BARS ASTM A615 Gr 60 Fy=60 KSI . THE REQUIRED MINIMUM 28 DAY COMPRESSIVE STRENGTH OF THE COMBINATION OF CONCRETE BLOCK, GROUT AND MORTAR ON THE NET AREA OF THE CONSTRUCTION (fm) SHALL BE A MINIMUM OF 2,000 PSI. 2. ALL CONCRETE BLOCK MASONRY UNITS SHALL BE NORMAL WEIGHT. 3. ALL CONCRETE BLOCK MASONRY UNITS SHALL BE LAID IN RUNNING BOND, UNO. 4. MASONRY BLOCK CELLS CONTAINING VERTICAL REINFORCING SHALL BE GROUTED SOLID. FILLING CELLS WITH MORTAR IS UNACCEPTABLE. IG A MINIMUM 5. ALL BOND BEAMS TO BE GROUTED SOLID. 6. THE BASE OF EACH CELL IN WHICH REINFORCING BAR IS PLACED MUST HAVE A CLEAN OUT HOLE. VERTICAL REINFORCING BARS SHALL BE LAPPED PER SCHEDULE.

DETAIL AND DETAILING OF CONCRETE REINFORCEMENT

BUILDING CODE REQUIREMENTS FOR REINFORCED

STRUCTURAL WELDING CODE - REINFORCING STEEL WELDED WIRE FABRIC MANUAL OF STANDARD PRACTICE

CRSI MANUAL OF STANDARD PRACTICE

MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES. PROVIDE CONTINUOUS REINFORCED BOND-BEAMS IN ALL REINFORCED MASONRY WALLS AT THE TOP, AND AS REQUIRED IN THE CONTRACT DRAWINGS. BOND-BEAMS AT THE TOP OF THE WALL SHALL BE CONTINUOUS AT MASONRY CONTROL JOINTS. ALL OTHER BOND-BEAMS SHALL NOT BE CONTINUOUS AT MASONRY CONTROL JOINTS. BOND-BEAM REINFORCING SHALL EXTEND INTO AND BE CONTINUOUS WITH ALL INTERSECTING BOND-BEAMS.

REINFORCED MASONRY WALLS SHALL HAVE #9 GAUGE (LADDER TYPE) HORIZONTAL REINFORCING AT SPACING AS NOTED ON CONTRACT DRAWINGS, BUT AT A MAXIMUM OF 16" O.C. VERTICALLY.

10. FILL CORES OF MASONRY UNDER ALL BEARING PLATES. THE MINIMUM WIDTH SHALL BE 3 TIMES THE BEARING PLATE LENGTH FOR THREE

COURSES BELOW BEARING, UNO. 11. BRACE ALL MASONRY WALLS DURING CONSTRUCTION AS REQUIRED TO RESIST WIND AND OTHER TEMPORARY LOADS UNTIL FINAL STRUCTURAL

MEMBERS ARE INSTALLED. 12. PROVIDE BAR POSITIONERS ON ALL REINFORCING TO HOLD AND MAINTAIN PROPER REBAR LOCATIONS AND COVER DURING GROUTING.

MASONRY VENEERS CODES.

	CODES:			
	ACI 530.1/ASCE 6/TMS 602	SPECIFICA	TION FOR MASONRY S	TRUCTURES
	ACI 530/ASCE 5/TMS 402	BUILDING MASONRY	CODE REQUIREMENTS STRUCTURES	FOR
	MATERIALS:			
	VENEER ANCHORS		ASTM A153 CLASS B2	
	TYPE N/S MORTAR		ASTM C270	
	GROUT (28 DAY STRENGT	H)	ASTM C476	2,000 PSI
	REINFORCING BARS		ASTM A615 Gr 60	Fy=60 KSI
	SEE ACI 530.1/ASCE 6/TMS ( SPECIFICATION REQUIREM	602-05 TABL ENTS.	ES C-4 AND C-5 FOR AS	ЯΤМ
	THE AIR SPACE BETWEEN	THE VENEE	R AND THE BUILDING W	ALL IS TO BE
,	NO LESS THAN 1" AND NO ( WICK AND TUBE WEEP SPA	CING SHAL	HAN 4 1/2". Γ ΝΟΤ ΒΕ ΩREΔTER ΤΗ/	AN 16" OC
	OPEN HEAD JOINT WEEPS	SHALL NOT	BE SPACED GREATER	THAN 24" OC.
	VENEER ANCHORS SHALL	BE A MINIMU	JM W1.7 ADJUSTABLE V	VIRE
	ANCHORS, HOT DIPPED GA	LVANIZED,	TWO PIECE. THE HORIZ	ZONTAL
	SPACING SHALL BE 32" OC.	MAX THE	VERTICAL SPACING SH	ALL BE 18"

OC, MAX. THE MAXIMUM WALL AREA THAT ONE ANCHOR MAY TIE SHALL BE LESS THAN 2 SQFT.

VENEER ANCHORS SHALL BE SECURED TO STEEL STUDS THRU SHEETING WITH A MINIMUM OF (2)-#10 (.190" Ø) SELF-TAPPING SCREWS, TO WOOD STUDS THRU SHEETING WITH A MINIMUM OF (2)-8d (131" Ø) GALVANIZED NAILS AND TO STRUCTURAL MASONRY WALL WITH A MINIMUM OF (2)-3/16"

Ø MASONRY SCREWS. VERTICAL EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 25'-0" OC, AT ALL CORNERS, OFFSETS, INTERSECTIONS, OR SETBACKS, AT CHANGES IN WALL HEIGHT AND AT ONE END OF ALL LINTELS.

HORIZONTAL EXPANSION JOINTS SHALL BE PLACED IMMEDIATELY BELOW SHELF ANGLES.

STRUCTURAL STEEL

CODES:			
AISC	SPECIFICATION FOR L ERECTION OF STEEL	DESIGN, FABRICATION / FOR BUILDINGS	AND
AISC	CODE OF STANDARD AND BRIDGES	PRACTICE FOR STEEL	BUILDINGS
AWS D1.1	STRUCTURAL WELDIN	IG CODE - STEEL	
AISC	STRUCTURAL STEEL I	DETAILING MANUAL	
MATERIALS:			
HOT ROLLED \	N & WT SHAPES	ASTM A992	Fy=50 KSI
ANGLES, CHAI	NNELS & PLATES	ASTM A36	Fy=36 KSI
S + M SHAPES		ASTM A36	Fy=36 KSI
HP SHAPES		ASTM A572 Gr 50	Fy=50 KSI
STEEL PIPE		ASTM A53 Gr B	Fy=35 KSI
RECTANGULA	R HSS	ASTM A500 Gr B	Fy=46 KSI
ROUND HSS		ASTM A500 Gr B	Fy=42 KSI
HIGH STRENG	TH BOLTS	ASTM A325	
HEAVY HEX NU	JTS	ASTM A563	
HARDENED ST	TEEL WASHERS	ASTM A436	
ANCHOR ROD	S	ASTM F1554 Gr 36	Fy=36 KSI
THREADED RC	DDS	ASTM A36	Fy=36 KSI

1. PROVIDE 2 MIL THICKNESS GRAY OXIDE PRIMER ON ALL STEEL SURFACES (UNO)2. ÀLL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED PER

ASTM A108

ASTM A123 AND FASTENERS HOT DIPPED GALVANIZED PER ASTM A153. ANCHOR RODS SHALL BE PRESET WITH TEMPLATES.

4. LEVELING PLATES AND BEARING PLATES SHALL BE SET IN A FULL BED OF NON-SHRINK GROUT. 5. CONNECTIONS MAY BE BOLTED OR WELDED AT THE FABRICATORS OPTION. BOLTED CONNECTIONS SHALL BE A MINIMUM BOLT DIAMETER OF 3/4" (UNO), HIGH STRENGTH BOLTS IN SINGLE OR DOUBLE SHEAR (UNO) AND SIMPLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION PER AISC REQUIREMENTS FOR UNRESTRAINED MEMBERS.

THE MINIMUM FILLET WELD SIZE SHALL NOT BE LESS THAN 3/16" (UNO). 7. ALL WELDS SHALL USE WELD METAL CONFORMING TO E70XX AND

CONFORMING TO AWS WELDING PROCEDURES AND STANDARDS. 8. ALL WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS CERTIFIED IN THE POSITION IN WHICH THE WELD IS TO BE MADE.

9. THE ERECTION OF ANY STRUCTURAL STEEL MEMBERS SHALL NOT COMMENCE UNTIL ALL SUPPORTING CONCRETE/MASONRY ELEMENTS HAVE ATTAINED AT LEAST 75% OF THEIR INTENDED MINIMUM COMPRESSIVE STRENGTH.

10. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS AS REQUIRED FOR THE SAFE ERECTION OF ALL STEEL. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT

BRACING HAS BEEN INSTALLED AND FLOOR SLAB CONCRETE HAS ATTAINED 75% OF ITS REQUIRED STRENGTH. 11. STRUCTURAL STEEL SHALL BE TRUE AND PLUMB BEFORE FINAL BOLTING

OR WELDING OF CONNECTIONS. 12. THE CONTRACTOR SHALL NOT MODIFY OR CUT ANY STRUCTURAL STEEL

WITHOUT WRITTEN APPROVAL FROM THE EOR. 13. THE CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS, AND

SIMILAR DEFECTS IN PAINT OF STRUCTURAL STEEL. 14. PROVIDE 1/4" CLOSURE/END PLATES FOR ALL OPEN ENDS OF HSS & PIPE

STEEL DECK AND SHEAR CONNECTORS

MEMBERS.

HEADED STUD ANCHORS

CODES:						
AISC	AISC SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS					
AISI	AISI SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD FORM STEEL STRUCTURAL MEMBERS					
AWS D1.3	AWS D1.3 STRUCTURAL WELDING CODE - SHEET METAL					
SDI	CODE OF PRACTICE					
MATERIALS:						
ROOF DECK -	PAINTED	ASTM A611 Gr C	Fy=33 KSI			
<b>ROOF DECK -</b>	ROOF DECK - GALVANIZED ASTM A446 Gr A Fy=33 KSI					
NONCOMPOS	ITE DECK - PAINTED	ASTM A446 Gr E	Fy=50 KSI			
COMPOSITE D	ECK - GALVANIZED	ASTM A446 Gr 1	Fy=50 KSI			
GALVANIZING		ASTM A525 CLASS G6	0 MIN			
PRIMER PAINT SHALL BE SHOP APPLIED OVER CLEAN AND PHOSPHATIZED						

2. STEEL DECK SHALL EXTEND OVER THREE OR MORE SPANS WHENEVER POSSIBLE. MINIMUM BEARING AT ENDS SHALL BE 1 1/2".

3. STEEL DECK SHALL BE FASTENED AS SHOWN ON THE PLANS.

4. IF STEEL DECK IS TO BE FASTENED WITH THE USE OF WELDS, USE 16 GA. WELD WASHERS AT ALL THICKNESS LESS THAN 22 GA, WELDS SHALL NOT BE USED AT SIDE LAP FASTENERS AND DECK SHALL BE WELDED TO SUPPORTS WITH HOBART 1139 WIRE (IRON POWER RODS) OR AN APPROVED EQUAL. SHEAR CONNECTORS, NUMBER INDICATED ON THE FRAMING PLANS AT EACH

BEAM BY ( X ) SHALL BE EQUALLY SPACED OVER THE LENGTH OF THE BEAM STARTING AS NEAR AS POSSIBLE TO THE BEAM SUPPORTS. WHERE STEEL DECK CORRUGATIONS DO NOT ALLOW FOR AN EVEN SPACING. THE SPACING SHALL BE VARIED SO THAT THE HIGHEST DENSITY OF CONNECTORS OCCURS NEAREST THE SUPPORT.

STEEL STAIRS, HANDRAILS AND GUARD RAILS

STRUCTURE BY THE STAIR STRUCTURE.

1. ENGINEERED STEEL STAIR SYSTEM: STRINGERS, HEADERS, LANDINGS, RAILINGS. GUARD RAILS AND CONNECTIONS TO THIS STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE LOCATION OF THIS BUILDING. PROVIDE SIGNED & SEALED STRUCTURAL

CALCULATIONS WITH SHOP DRAWING SUBMITTAL. 2. THE CONFIGURATION OF THE STEEL STAIR SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

3. THE LOADS REQUIRED FOR THE DESIGN OF THE STEEL STAIR SYSTEM SHALL BE AS INDICATED ON THE "DESIGN LOADS" SECTION OF THESE NOTES. 4. THE SHOP DRAWINGS SHALL INDICATE LOADS IMPOSED ON THE BUILDING

<u>STEEL JOIST</u> CODES:

SJI STANDARD SPECIFICATION FOR OPEN WEB, LONG SPAN AND DEEP LONG SPAN STEEL JOISTS AND JOIST GIRDERS SJI RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS 1. STANDARD SEAT DEPTHS SHALL BE 2 1/2" FOR K SERIES JOISTS, 5" FOR LH & DLH JOISTS AND 6" FOR JOIST GIRDERS.

2. SUPPLIER SHALL PROVIDE BRIDGING AND CROSS BRACING PER SJI REQUIREMENTS AND UPLIFT REQUIREMENTS AS SHOWN ON DRAWINGS.

3. JOISTS SHALL RECEIVE ONE COAT OF SHOP APPLIED PAINT CONFORMING TO THE MINIMUM REQUIREMENTS OF THE "STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS.

4. PROVIDE BOLTED CONNECTIONS AT ALL COLUMN LINES. 5. CONTRACTOR SHALL SUBMIT COMPLETE AND DETAILED SHOP DRAWINGS TO THE EOR FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION. INCLUDE METHODS OF FASTENING, BRIDGING LAYOUT AND MISCELLANEOUS ITEMS.

**POST-INSTALLED ANCHORS** 

1. THE DIAMETER, EMBEDMENT LENGTH AND TYPE OF ADHESIVE ANCHORS, EXPANSION ANCHORS, AND SCREW ANCHORS SHALL BE AS SPECIFIED ON THE DRAWINGS.

2. THE SUBSTITUTION OF OTHER MANUFACTURER'S SIMILAR PRODUCTS IS ALLOWED, PROVIDED THAT THE SIZE IS EQUAL TO, AND CAPACITY IN SHEAR AND UPLIFT ARE EQUAL TO OR GREATER THAN WHAT IS SPECIFIED ON THE DRAWINGS. THE COST OF REDESIGN OF SUCH SUBSTITUTIONS SHALL BE BORE BY THE CONTRACTOR.

3. INSTALLATION OF ANCHORS SHALL STRICTLY FOLLOW ALL MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS. ALL DRILL HOLE PREPARATIONS SHALL BE FOLLOWED. 4. NO LOAD SHALL BE APPLIED TO ADHESIVE ANCHORS PRIOR TO THE FULL CURE

TIME AS SPECIFIED BY THE MANUFACTURER. 5. TESTING OF 10% OF ALL INSTALLED ANCHORS IS REQUIRED. TESTED ANCHORS SHALL MEET THE MANUFACTURERS PROOF LOAD REQUIREMENTS AND/OR INSTALLATION TORQUE REQUIREMENTS. MALFUNCTIONING FASTENERS SHALL BE REPLACED.



	11				STEEL COL	UMN SCHEI	DULE	
T/JOIST 131'-4"								
GIRT LEVEL 5 125'-10"								
GIRT LEVEL 4								
120'-10"								
	V12X53			V12X53			3	
GIRT LEVEL 3	>			>				
113-10"							W1	
GIRT LEVEL 2								
107'-4"								
GIRT LEVEL 1								
104-4"								
FIRST FLOOR 100'-0"								
Column Locations	A-1, A-2, A-2.5, A A-4.7, A-5, A-5.5 A.5-1, A.5-8, B-1 B.5-1, B.5-8, C-1 C.5-1, C.5-8, D-1, D-3.5, D-4, D-4 D-5.5, D-6, D-	-3, A-3.5, A-4.3, 5, A-6, A-7, A-8, , B-2, B-7, B-8, , C-2, C-7, C-8, D-2, D-2.5, D-3, .3, D-4.7, D-5, 6.5, D-7, D-8		A-	4	В	-3, B-4,	B-5, B-6
B/Base PL EL	99'-5 1/2	2"		99'-5	5 1/2"		98'	-1 1/2"
Base PL Size	18" x 12			18" :	x 12"		18'	' x 12"
Base PL Thick	3/4"			3/	/4"		;	3/4"
Anchor Rods	3/4 Ø			3/4	4 Ø		3	/4 Ø
Base PL Detail	2/S002			2/S	002		2/	S002
Remarks			-					









1 COMPONENTS & CLADDING DIAGRAM S002 SCALE: NTS

Ø <u><</u> 7°

	FOOTING SCHEDULE						
		DIMENSIONS					
MARK	WIDTH	LENGTH	DEPTH	REINFORCING	REMARKS		
F4	4'-0"	4'-0"	1'-0"	(4) #5 EW			
F5	5'-0"	5'-0"	1'-0"	(5) #5 EW			
F7	7'-0"	7'-0"	1'-2"	(9) #5 EW			
F8	8'-0"	8'-0"	1'-4"	(8) #6 EW			

				PIER SCHEDUL	E	
	DIMENSIONS REINFORCING				ORCING	DEMARKO
MARK	DIAMETER	WIDTH	DEPTH	VERTICAL	TIES	REMARKS
P24		2'-0"	2'-0"	(8)-#6	#3 @1'-0" OC	

8	BAR LAYOUT12 BAI3 TIES/SET4 TI	12 BAR LAYOUT 4 TIES/SET			BAR LAYO 4 TIES/SET			
		DECK/SLAB	SCHE	DULE				
 TOTAL	DECK/S	LAB			TOPPING			
DEPTH	ТҮРЕ	DEPTH		FINISH	DEPTH	TYPE	REMARKS	
4"	NWC - SLAB ON GRADE	4"	-	-	-	-	FORTA FERRO FIBER REINF (3LB/CY)	
1 1/2"	METAL DECK - TYPE B	1 1/2"	22	GALVANIZED	-	-		
1 1/2"	METAL DECK - TYPE B	1 1/2"	20	GALVANIZED	-	-		
4"	NWC - SLAB ON GRADE	4"	-	-	-	-	6x6-W2.1/W2.1 WWF OR FORTA FERRO FIBER REINF (3LB/CY)	
8"	NWC - SLAB ON GRADE	8"	-	-	-	-	#4s AT 12" OC, EACH WAY (TOP & BOTTOM)	

LINTEL S	CHEDULE		
LINTEL	JAMB REINF	LINTEL TYPE	REMARKS
8" BOND BEAM W/ (2)-#5 CONT	(1) #5	A	

ULTIMATE ROOF SURFACE PRESSURE (PSF)						
AREA (SF)	10.0	100.0	500.0			
NEGATIVE ZONE 1	-52.6	-42.8	-35.9			
NEGATIVE ZONE 2	-82.5	-68.8	-59.2			
NEGATIVE ZONE 3	-112.4	-94.8	-82.5			
POSITIVE ZONE 1	16.0	16.0	16.0			
POSITIVE ZONES 2 & 3	-	-	-			
OVERHANG ZONE 1 & 2	-	-	-			
OVERHANG ZONE 3	-	-	-			
ULTIMATE PARAP	ET SURFACE PRESSURE (PSF)					
AREA (SF)	10.0	50.0	100.0			
CASE A: INTERIOR ZONE	106.4	94.0	87.7			
CASE A: CORNER ZONE	136.4	121.2	113.8			
CASE B: INTERIOR ZONE	-59.9	-55.1	-51.6			
CASE B: CORNER ZONE	-89.8	-79.4	-71.5			
ULTIMATE WALL	SURFACE PR	ESSURE (PSF)				
AREA (SF)	20.0	100.0	200.0			
NEGATIVE ZONE 4	-35.9	-32.6	-31.2			
NEGATIVE ZONE 5	-65.9	-52.6	-46.8			
POSITIVE ZONE 1 & 5	35.0	30.0	28.8			

NOTE: 1. REFER TO "WIND LOADS AT COMPONENTS AND CLADDING" FOR DEFINITIONS. (1) THROUGH (5) INDICATES WIND LOAD ZONES. 2. NOTATION: " " 40 DEPOSITION OF A STATIONIZATION OF 0.45 WHICHEVER "a" 10 PERCENT OF LEAST HORIZONTAL DIMENSION OR 0.4h, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4" OF LEAST HORIZONTAL DIMENSION OR 3 FT. "h" MEAN ROOF HEIGHT, IN FEET, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR  $\emptyset \le 10^{\circ}$ "Ø" ANGLE OF PLANE OF ROOF FROM HORIZONTAL, IN DEGREES.





S002

PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342













B





![](_page_63_Figure_1.jpeg)

![](_page_64_Figure_0.jpeg)

![](_page_64_Picture_1.jpeg)

 ROOF PLAN NOTES:

 1. SEE SHEET S001 FOR GENERAL NOTES AND S002 FOR SCHEDULES.

 2. SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.

INCLUDING TYPICAL WALL REINFORCING.
 SEE SHEET S500 FOR TYPICAL STEEL SECTIONS AND DETAILS.
 SEE ARCHITECTURAL DRAWINGS FOR TRUSS BEARING ELEVATIONS AND ROOF SLOPES.
 COORDINATE FINAL SIZE AND LOCATION OF OPENINGS, EQUIPMENT AND ROOF DRAINS WITH MECHANICAL AND PLUMBING CONTRACTORS.
 DESIGN JOISTS FOR A NET UPLIFT OF 15 PSF.
 ALL HEADERS AND BEAMS TO BE DROPPED UNO.

STEEL CONNECTION SYMBOLS:							
1.	MOMENT						
2. )	CANTILEVER MOMENT						
3. 🛏 🗕	END PLATE						
4. <b>—    </b> —	SHEAR SPLICE						
5. —	SLIP CRITICAL						

![](_page_64_Picture_7.jpeg)

![](_page_64_Figure_8.jpeg)

![](_page_65_Figure_0.jpeg)

ROOF PLAN NOTES:
SEE SHEET S001 FOR GENERAL NOTES AND S002 FOR SCHEDULES.
SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.
SEE SHEET S500 FOR TYPICAL STEEL SECTIONS AND DETAILS.
SEE ARCHITECTURAL DRAWINGS FOR TRUSS BEARING ELEVATIONS AND ROOF SLOPES.
COORDINATE FINAL SIZE AND LOCATION OF OPENINGS, EQUIPMENT AND ROOF DRAINS WITH MECHANICAL AND PLUMBING CONTRACTORS.

CONTRACTORS.6. DESIGN JOISTS FOR A NET UPLIFT OF 15 PSF.7. ALL HEADERS AND BEAMS TO BE DROPPED UNO.

B

![](_page_65_Figure_5.jpeg)

![](_page_66_Figure_0.jpeg)

 1
 ROOF FRAMING PLAN - AREA B

 S102B
 SCALE: 1/8" = 1'-0"

B

1

![](_page_66_Figure_5.jpeg)

![](_page_67_Figure_0.jpeg)

![](_page_67_Figure_1.jpeg)

![](_page_67_Figure_2.jpeg)

![](_page_67_Picture_3.jpeg)

![](_page_67_Picture_4.jpeg)

GIRT STUD XD & 4TH GIRTS	5.5		5	<i>Ì</i> ) (4	<b>4.3 4</b>	<b>I</b> (	3.5		3	2	.5	2		
	W21X44			W21X44		W	21X44			W2 [·]	1X44		W21X44	
10ZS3.25x105		10ZS3.25x105	10ZS3.25x105	10ZS3.25x105		10ZS3.25x105		10ZS3.25x105				10ZS3.25x105	10ZS3.25x105	<u></u>
HSS10X6X5/16		10ZS3.25x105	10ZS3.25x105	HSS10X6X5/16	10ZS3.25x105	10ZS3.25x105		HSS10X6X5/16		10ZS3.25x105		HSS10X6X5/16	10ZS3.25x105	
; 10ZS3.:	25x105	10ZS3.25x105	10ZS3.25x105		10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	1	10ZS3.25x105	10ZS3.25x105 10	ZS3.25x105	10ZS3.25x105	10ZS3.25x105	GIRT_LÉVÊL 3" 113'-10"
5 10ZS3.	25x105	10ZS3.25x105	10ZS3.25x105	1	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105		10ZS3.25x105	10ZS3.25x105 1(	)ZS3.25x105	10ZS3.25x105	10ZS3.25x105	GIRT LEVEL 2
5 10ZS3.:	25x105	10ZS3.25x105	10ZS3.25x105	+	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	· · · · · · · · · · · · · · · · · · ·	10ZS3.25x105	10ZS3.25x105 10	)ZS3.25x105	10ZS3.25x105	10ZS3.25x105	
		<u> </u>						<u></u>						FIRST FLOOR 100'-0"
		·									<u></u>		<u>.</u>	T/EOOTING 96'-0"

	C B	.5	B	A.5 (A	
	       W18	     3x35	W1	     8x35	T/JOIST
)5	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	131'-4" Ψ
)5	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	125'-10"
	10ZS3.25x105			10ZS3.25x105	
)5	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	
)5	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	10ZS3.25x105	
- 4 À ` : - ^ ¯	I				FIRST FLOOR 100'-0"
		<u> </u>			96'-0"

![](_page_67_Figure_7.jpeg)

![](_page_68_Figure_0.jpeg)

# MASONRY BAR LAP LENGTHS (Ld) F'm = 2,000 psi

1 \$400

SCALE: NTS

BAR SIZE	8" & 10" BLOCK CLEAR COVER <u>&gt;</u> 1 3/4"	12" BLOCK CLEAR COVER ≥ 2"	CENTERED IN 8" BLOCK	CENTERED IN 10" BLOCK	CENTERED IN 12" BLOCK			
#3	15"	13"	8"	8"	8"			
#4	25"	22"	13"	10"	10"			
#5	39"	35"	20"	16"	13"			
#6	MECH SP	MECH SP	38"	29"	24"			
#7	MECH SP	MECH SP	MECH SP	40"	33"			
#8	MECH SP	MECH SP	MECH SP	MECH SP	MECH SP			
#9	NA	MECH SP	NA	MECH SP	MECH SP			
#10	NA	MECH SP	NA	MECH SP	MECH SP			
#11	NA	MECH SP	NA	NA	MECH SP			

**REINFORCING LAP LENGTHS** 

TYPICAL MASONRY

![](_page_69_Figure_5.jpeg)

![](_page_69_Figure_6.jpeg)

![](_page_69_Figure_7.jpeg)

![](_page_69_Figure_8.jpeg)

![](_page_69_Figure_9.jpeg)

5 S400 SCALE: NTS

![](_page_69_Picture_12.jpeg)

6 CMU WALL CORNER S400 SCALE: NTS

![](_page_69_Picture_14.jpeg)

7 CMU WALL END S400 SCALE: NTS

22 A LINTEL TYPE A S400 SCALE: NTS

![](_page_69_Picture_17.jpeg)

![](_page_69_Figure_18.jpeg)

![](_page_70_Figure_0.jpeg)

14 BRAC S500 SCALE: NTS

BRACING INTERSECTION

![](_page_70_Figure_3.jpeg)

![](_page_71_Figure_0.jpeg)

![](_page_71_Figure_1.jpeg)

![](_page_71_Figure_2.jpeg)

TYPICAL ROOF

![](_page_71_Picture_3.jpeg)


## **Steel Cost Adjustment Provision**

Bidder must indicate on the Lump Sum Proposal Form whether they elect to participate in the Steel Cost Adjustment Provision as outlined in the attached Illinois Department of Transportation document. The adjustment may be either provide additional compensation to the Contractor or a credit to FRSA. Adjusted steel material costs will apply to the below components; it is the prerogative of the bidder for which items are ultimately included. Bidder may also elect to not participate in this adjustment.



## STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004 Revised: January 1, 2022

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, welded reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

SCA = Q X D

Where: SCA = steel cost adjustment, in dollars

Q = quantity of steel incorporated into the work, in lb (kg)

D = price factor, in dollars per lb (kg)

 $D = MPI_M - MPI_L$ 

- Where:  $MPI_M =$  The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).
  - MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $MPI_M$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPL and MPL in excess of five percent, as calculated by:

Percent Difference =  $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$ 

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment	
Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	$\sim$ $\sim$ $\sim$ $\sim$
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 ka/m)
Furnishing Metal Pile Shells 12 in (305 mm), 0.250 in (6.35 mm) wall thickness)	32  lb/ft (48  kg/m)
Furnishing Metal Pile Shells 14 in (356 mm), 0 250 in (6.35 mm) wall thickness)	37  lb/ft (55  kg/m)
Other niling	See plans
Structural Stool	Soo plans for weights
Siluciular Steel	(massas)
Deinfereing Steel	(Illasses)
Remorcing Steel	See plans for weights
	(masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Welded Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail. Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail. Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles. Towers and Mast Arms	
Traffic Signal And	$11 \ln/(t) (16 \ln a/m)$
Light Pole Topon Mount and Twin Mount 20, 40 ft (0, 12 m)	1 1 ID/II (10 Kg/III)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14  ID/ft (21  kg/ft)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 🛋	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	0_ 10, 11 (11 11g, 11)
Frame	250 lb (115 kg)
Lide and Grates	150 lb (70 kg)
	150 lb (70 kg)
00107	
80127	

I

