

### NOTICE TO BIDDERS AND SPECIFICATIONS FOR

Wilmette Park District 2026 Centennial Cooling Tower Replacement

**MANDATORY PRE-BID WALK THRU:** December 8th, 9th and 10th from 9am – 11am

**BID SUBMISSION DEADLINE:** Friday, December 19th, 2025, at 1:00pm **BID OPENING:** Friday, December 19th, 2025, at 1:00pm

Bid drop off and opening location is at 3000 Glenview Rd. Wilmette, II. 60091

Owner: Wilmette Park District

3555 Lake Ave Wilmette, IL 60091 (847) 256-9639

#### TABLE OF CONTENTS

| <u>ltem</u>                  | <u>Pages</u> |
|------------------------------|--------------|
| Invitation to Bid            | 03           |
| Instructions to Bidders      | 04-05        |
| General Conditions           | 06-09        |
| General Insurance Provisions | 10-11        |
| Scope of Work                | 12-13        |
| Bid Proposal                 | 14-15        |
| Contractor References        | 16           |

#### INVITATION TO BID 2025 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

The Wilmette Park District is seeking sealed base bids for the removal and replacement of the existing Centennial cooling tower. Centennial Ice Rinks are open Sunday – Friday 9am – 6pm. Currently, the existing cooling tower supports two separate ice rinks. The scope of work includes the removal of the existing cooling tower, and installation of new cooling tower that meets the required specifications attached to this document. Additionally, a new concrete pad will be poured on the south side of the building. Once the pad has been poured and set, the newly purchased cooling tower will be placed, and a sound attenuation wall shall be placed around the cooling tower. The bidder will find attached: the acoustic report that identifies the concrete pad, attenuation wall and sound ratings and the required cooling tower selected by the Park District as well as the supported cooling tower structure documents. **Please note:** the existing cooling tower must remain active through May 1st – October 31st and could extend longer based on weather and cooling demands.

There will be a mandatory pre-bid meeting held on December 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> at 9:00 am at the Centennial Ice Rink located at 2300 Old Glenview Rd., Wilmette, II. 60091. During this time bidders can verify logistics and square footage.

Bids are due at or before 1:00 PM on Friday, December 19th, 2025, via mail or drop-off at 3000 Glenview Rd. Wilmette, IL. 60091, at which time they will be publicly opened and read aloud.

All bids must be submitted on the proposal forms included in the bid documents and include all specification and warranty sheets.

All contracts for work herein are subject to the provisions of all Wilmette Park District regulations and providing for the payment of Cook County's prevailing rate of wages to all related laborers, workers, and mechanics involved in the project. For more information regarding the current prevailing wage rates, please refer to the Illinois Department of Labors website at <a href="https://labor.illinois.gov/">https://labor.illinois.gov/</a> All contractors and subcontractors rendering services under the contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

All bids must be accompanied by cashier's check or bid bond payable to the order of the Wilmette Park District for five percent (5%) of the amount of the bid as provided in the Instructions to Bidders. No proposals or bids will be considered unless accompanied by such bond or check.

All bids will remain firm for 30 days after the bid opening. The Wilmette Park District reserves the right to reject any or all bid proposals or to accept any bid proposal, which in its judgment, will be in the best interest of the public or to waive any informalities in bidding. Only bid proposals in compliance with the provisions of the Contract Documents will be considered. No bids shall be withdrawn after the opening of the bids for a period of thirty (30) days after the bid date opening.

#### INSTRUCTIONS TO BIDDERS 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

For the purpose of these specifications, "Owner" or "District" shall refer to the Wilmette Park District, and "Contractor" shall refer to the party entering into the contract for the performance of the specified work, and their legal representatives or agents. Upon award of the Contract, these instructions shall become a part of the Contract Documents.

#### 1. BID OPENING

Paper bids must be received by 1:00 PM on Friday December 19th, at 3000 Glenview Rd, Wilmette, Illinois, 60091. Bids received after this time will not be accepted nor opened. Bidder is solely responsible for delivery of their bid. Bids will be opened publicly immediately after the specified closing time.

#### 2. BIDDER EXPERIENCE

The Contactor bidding the project shall be actively engaged in work of the nature described in the plans and specifications, must have a minimum of five (5) years' experience in HVAC and structural repair. The Contractor shall submit with the bid proposal no less than three (3) references for which the Contractor has completed work similar to that described in the plans and specifications.

#### 3. BID FORM PREPARATION

All blanks on the Bid Form must be completed by legibly printing or typing in ink. In signing this bid, Bidder certifies their bid is genuine and not made in the interest or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any other advantage over any other Bidder or over Owner. All names must be typed or printed in ink below the signature. Bids by corporations must be executed in the corporate name by the president or a vice-president (or by other corporate officer accompanied by evidence of authority to sign). The corporate address and state of incorporation must be shown below the signature.

Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

Bids shall be submitted using the enclosed Bid Form (including any required exhibits) and the bid security (if required).

#### 4. MODIFICATION/WITHDRAWAL OF BID

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a bid must be executed) and delivered to the place where Bids are to be submitted only prior to the opening of Bids.

The Contractor certifies that to the best of its knowledge, no officer or employee has been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, nor has any officer or employee made an admission of guilt of such conduct which is a matter of record. By signing this bid document, the Bidder hereby certifies that they are not barred from bidding on this contract as a result of a violation of Article 33E, Public Contracts of the Illinois Criminal Code of 1961, as amended (IL Revised Statutes Ch.38, Par.33E-1,et seq.).

#### **5. RESERVED RIGHTS**

Wilmette Park District reserves the right to accept or reject any or all bids, in whole or in part, to combine or separate any section of work, to add or delete items in the bid or to waive any informality or technicality in any bid in the interest of the District. If the District finds reason to disqualify or reject the apparent low Bidder, the District reserves the right to award the Contract to the next lowest responsible Bidder, or to rebid the entire Project, or to cancel the Project. All bids will remain subject to acceptance for 90 calendar days after the day of the bid opening, but the District may, in its sole discretion, release any bid and return the bid security prior to that date. The Wilmette Park District will not be liable in any way for any costs incurred by respondents in replying to this bid.

#### 6. DISCRETIONARY TERMINATION

The District, at its sole discretion, reserves the right to terminate this Contract or any part hereof at any time the District determines it necessary. Upon notification by the District of such termination, Contractor shall immediately stop all Work hereunder, and shall immediately cause any of its subcontractors to cease such Work. Contractor shall be paid a percentage of the contract price reflecting the percentage of the Work performed prior to the notice of termination. For contracts awarded based on unit prices, the Contractor will be paid based on the number of units consumed or incorporated into the work prior to the notice of termination. For other contracts, the Park District shall exercise reasonable discretion to measure the percentage progress of the work completed. Contractor shall not be paid for any Work done after receipt of the notice of termination, nor for any costs incurred by Contractor's subcontractors which Contractor could reasonably have avoided. The Wilmette Park District shall be the sole judge as to the acceptability or quality of material bid.

#### 7. TERMINATION FOR CAUSE

The District may also terminate this Contract or any part hereof for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any of the terms and conditions of the Contract. Damage to Owner's or neighboring properties, failure to complete services or providing services which do not conform to this Contract, and failure to provide the District, upon request, reasonable assurances of future performance, shall be reasons allowing the District to terminate this Contract for cause. In the event of termination for cause, the District shall not be liable to Contractor, for any amount, and Contractor shall be liable to the District for any and all damages, sustained by reason of the default which gave rise to the termination, including, but not limited to, all remedies available under the Illinois Uniform Commercial Code.

#### GENERAL CONDITIONS 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

#### 1. PROPOSAL FORM

Bidders shall submit the proposal form provided VIA MAIL or DROP-OFF.

Bid for Project **2026 Centennial Cooling Tower Replacement** shall be received <u>at or before 1:00 PM on December 19<sup>th</sup>, 2025</u>, at which time they will be opened and read publicly.

#### 2. ACCEPTANCE OR REJECTION OF BID

The Wilmette Park District will accept or reject bids within thirty (30) days after analysis of the proposals and reserves the right to accept or reject any or all bids, to combine or separate any section of work, or to add or delete items in the bid if it is in the best interest of the District.

#### 3. BIDDER EXPERIENCE

The Contractor bidding the project shall be actively engaged in work of the nature described in the plans and specifications including a minimum of three (5) years experience in the sales and installation of ice rink floors.

#### 4. EXAMINATION OF SPECIFICATIONS

Before submitting a proposal, bidders shall carefully examine the specifications. By submitting a bid, the bidder warrants that they have examined the specifications, and that where the specifications require that a given result be produced, the specifications are adequate and the required result can be produced using the specifications.

#### 5. FEDERAL LABOR STANDARDS AND EQUAL EMPLOYMENT REQUIREMENTS

In the event the Contractor or does not comply with any provision of the Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Fair Employment Practices Commission's Rules and Regulations for Public Contracts, the Contractor may be declared non-responsible and therefore ineligible for future contracts with the State of Illinois or any of its political subdivisions, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

Contractor agrees to the following:

- A. Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. Contractor shall take affirmative action to ensure applicants are employed, and the employees are treated during employment, without regard to race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.
- B. Solicitation or advertisements for employees placed by or on behalf of Contractor shall state that applicants receive consideration for employment without regard to race, creed, color, or national origin.

#### 6. EMPLOYMENT OF ILLINOIS WORKERS

The Wilmette Park District is a public body that is subject to the Employment of Illinois Workers on Public Work Projects Act, Illinois Revised Statutes, Chapter 48; Paragraph 2201, et seq. Contractor shall comply at all times with provisions of the Act. Failure of Contractor to comply with the Act, and any rules or regulations promulgated by the State of Illinois with regard to the Act will result in the cancellation of the Contract. Contractor expressly waives any right for recovering damages due to Contract cancellation. Contractor shall maintain accurate records of the names and addresses of workers employed by it, whether skilled, semi-skilled, or unskilled, and whether manual or non-manual.

#### 7. COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT (ADA)

The Contractor shall not discriminate on the basis of disability and shall comply with pertinent sections of the Americans with Disabilities Act.

#### 8. WORK SITE SAFETY

Contractor shall be solely responsible for providing and maintaining safe conditions at the work site, including the safety of persons and property and shall comply with applicable laws and safety regulations to prevent injury to persons or damage to property. The Contractor is responsible for protecting public from dangerous situations on the site during Construction. This requirement shall apply continuously and shall not be limited to normal working hours.

Whenever public or private property is damaged, Contractor shall at his/her own expense, restore such property to a condition equal to that existing before the damage was done. Contractor shall also be responsible for damage to the work by actions of the elements or from any other cause whatsoever and shall restore the work at his/her own expense. A registered Land Surveyor at the Contractor's expense shall replace existing property comers disturbed or lost during contracted work.

Contractor shall have no claim against the Owner because of any damage or loss to the work or to Contractor's equipment, materials or supplies from any cause, including damage or loss due to simultaneous work by others.

When Owner's Representative deems any operation, condition or practice to be unsafe, Contractor shall take corrective action before affected work is resumed. Contractor shall protect public and adjacent properties including roadways and shall use necessary precautions to prevent damage or injury thereto. Contractor shall prevent damage to pipes, conduits, and other underground structures as well as fences, monuments or other aboveground structures. Vegetation not marked for removal shall not be cut, trimmed or damaged except with the approval and under the direction of Owner's Representative: Contractor shall provide on-site traffic patterns away from existing vegetation, provide necessary ramps and shall not park vehicles near or under existing vegetation. Contractor shall not park or maneuver equipment within ten (10) feet of tree drip lines or plants to be protected. Vegetation damaged during contracted work is subject to replacement at Contractor's expense. Contractor shall protect the Owner's employees and the public by properly operating equipment and providing other suitable methods for the protection of said persons.

#### 9. SCHEDULE OF WORK

The Contractor shall complete the services described in the scope of work by the date of December 15, 2026 at the latest. Please provide the anticipated installation date(s) in the bid proposal. Hours of operation for the facility are Monday-Friday 5am-10pm. Work must be performed during business hours with accommodation for public access.

#### **10. GUARANTEE**

The standard warranty for the products shall apply. Written warranty information must be included with bid submittal. Except as otherwise specified, the Contractor shall guarantee all workmanship and materials (parts and labor) for a period of one (1) year from date of installation. Neither the final payment nor termination of the guarantee period, nor any provision in the contract document, shall relieve the Contractor of the responsibility for negligence, faulty materials or workmanship within the extent and period provided by law. Upon written notice, the Contractor shall remedy any defects, and shall pay all expenses for damage to other work resulting from that defect.

If the drawings and/or specifications provide for methods of construction and installation, or materials which cannot be guaranteed by the Contractor for the indicated period, the Contractor shall so inform the Owner in writing prior to submitting a bid. Otherwise, the Contractor shall guarantee all methods of construction and installation, and materials for the indicated period of time.

#### GENERAL CONDITIONS 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

#### 1. TERMS

"Owner" shall refer to the Wilmette Park District. "Contractor" shall refer to the party entering into the contract for the performance of the specified work, and their legal representatives or agents. "Owner's Representative" shall refer to a designated employee or employees of the Wilmette Park District. Matt Marubio, Building Services Foreperson, has been designated the Owner's Representative.

#### 2. LAWS AND PERMITS:

Contractor shall at all times observe and comply with federal, state and local laws, regulations and ordinances which in any manner affect the conduct of the work. Complaints, claims or actions brought against Contractor for failure to observe or comply with any law, ordinance or regulation shall be the sole responsibility of Contractor and shall in no way extend to or expose the Owner to liability. Contractor shall perform all work and use only those materials conforming to city, county, state and federal codes regarding health, safety and welfare. The Owner shall not be held responsible for failure of work or materials that do not conform to codes. Prior to beginning the work, Contractor shall obtain permits and licenses, pay charges and fees, and give notices necessary and incident to the due and lawful prosecution of the work.

#### 3. ERRORS AND DISCREPANCIES

If the Contractor, during work, finds discrepancies between the plans and the physical conditions or any errors or omissions, it shall be their duty to notify the Owner immediately. The Owner's Representative shall verify such findings and determine the course of action, if any, necessary. Any work done after such discovery and without approval to commence from the Owner's Representative, shall be done at the Contractor's risk. The Owner reserves the right to prepare supplementary plans showing any additional or revised details for construction purposes not shown on the Contract plans when necessary.

#### 4. SUBCONTRACTORS AND SUPPLIERS

Contractor shall provide a list of subcontractors and suppliers to the Owner's Representative for approval prior to commencing the work. When any subcontractor or supplier fails to perform the work in accordance with the Contract, Contractor shall terminate such subcontractor or supplier upon written notice by the Owner. Contractor shall have no claim for damages, compensation in excess of Contract price or an extension of Contract time as a result of any such termination. The Contractor shall not let or transfer this contract or any part thereof without the written consent of the Owner. Contractor shall not be relieved from any liability or obligation under this Contract when work is assigned to others.

#### 5. ALTERATIONS, EXTENSIONS AND DEDUCTIONS:

The Owner reserves the right to extend or shorten the work, alter the plans, add incidental work, and increase or decrease quantities of work to be performed in accord with these changes, including the cancellation or deduction of any one or more of the work items. Changes shall not be considered as a waiver of Contract conditions.

Alterations, extensions and deductions shall be authorized by a written change order issued by the Owner and signed by Contractor and Owner before work is started. Change orders shall state the items of work involved, changes in Contract amount, and any extension in completion time. Claims for extra work, which have not been authorized by a written change order, will be rejected.

In the case of work specified by the Owner to be completed by the Contractor, but not indicated on the plans or specifications, or not susceptible to classification under the Schedule of Unit Prices in the bid proposal, the Contractor shall and will perform such work and furnish such materials as may be required. An agreement to the costs of such work and necessary materials shall be agreed upon before commencement of work, and shall be in writing.

The Owner shall have the right to increase or diminish all or any Contract amount or items without impairing the volume or scope of this Contract so long as these alterations do not change the amount of the contract

price more than thirty-five percent (35%).

#### 6. LABOR, EQUIPMENT AND METHODS

Contractor shall at all times employ sufficient labor and equipment for prosecuting the work in the manner and time specified. Workers shall have sufficient experience and skill to properly perform the Work and operate the equipment.

Equipment used shall be of such type, size and amount and in such mechanical condition as to meet the requirements of the work and produce a satisfactory quality of work. Contractor shall replace unsatisfactory equipment and furnish additional equipment when deemed necessary by Owner's Representative.

The specified methods and equipment shall be used in the prosecution of the work unless otherwise authorized by Owner's Representative. Contractor may make a written request to Owner's Representative to use a method or type of equipment other than those specified. The request shall include a description of the proposed methods, equipment and an explanation of the reasons for the substitution. When Owner's Representative authorizes trial use of the substitution, Contractor shall be responsible for producing the work in conformance with the Contract. If Owner's Representative determines that the trial method or equipment does not conform to the Contract requirements, Contractor shall discontinue use of the substitute method or equipment and shall complete the remaining work with the specified methods or equipment. Contractor shall remove defective work and replace it with work meeting the Contract requirements or take other corrective action as directed by Owner's Representative. No increase will be made in payment or in contract time as a result of authorizing a change in methods or equipment under these provisions.

#### 7. SUBMITTALS

Contractor shall submit to Owner's Representative the required product data sheets, warranty information and all other required submittals per specifications concerning materials and equipment. Owner's Representative's review and approval of required submittal shall be for the sole purpose of examining the general details and design of the proposed work and shall not be regarded as an assumption of risk or liability. Equipment and materials installed or used without such review shall be at risk of rejection and replacement by Contractor at no cost to the Owner.

Unless otherwise specified, equipment and materials are to be new and of best quality. Materials, equipment or work having a well-known, technical or trade meaning but not specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning recognized by Architects, Engineers and Tradesmen.

#### 8. COMPLETION DATE

Contractor warrants that the commencement and completion dates specified in the Information for Bidders is reasonable time for completion of the work for the Contract price taking into consideration natural and manufactured conditions that may affect the work.

#### 9. PAYMENT

The Owner shall make an inspection of products and work upon completion. Payment will be made upon completion of this inspection and any needed adjustments. Contractor will send an invoice to the Owner.

# GENERAL INSURANCE PROVISIONS 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

#### **Evidence of Insurance**

- 1. Prior to beginning work, Contractor shall furnish the Park District with a Certificate(s) of Insurance and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above.
- 2. All certificates shall provide for 30 days written notice to the Park District prior to the cancellation or material change of any insurance referred to therein. Written notice to the Park District shall be by certified mail, return receipt requested.
- Failure of the Park District to demand such certificate, endorsement or other evidence of full
  compliance with these insurance requirements or failure of the Park District to identify a
  deficiency from evidence that is provided shall not be construed as a waiver of Contractor's
  obligation to maintain such insurance.
- 4. Park District shall have the right, but not the obligation, of prohibiting Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the Park District.
- 5. Failure to maintain the required insurance may result in termination of this Agreement at the Park District's option.
- 6. With respect to insurance maintained after final payment in compliance with a requirement above, an additional certificate(s) evidencing such coverage shall be promptly provided to the Park District whenever requested.
- 7. Contractor shall provide certified copies of all insurance policies required above within 10 days of the Park Districts written request for said copies.

#### 8. Acceptability of Insurers

For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Park District has the right to reject insurance written by an insurer it deems unacceptable.

#### 9. Cross-Liability Coverage

If Contractor's liability policies do not contain the standard ISO separation of insured's provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

#### 10. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to the Park District. At the option of the Park District, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Park District, its commissioners, officers, officials, employees, volunteers and agents or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.

#### 11. Subcontractors

Contractor shall cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified above. When requested by the Park District, Contractor shall furnish copies of certificates of insurance evidencing coverage for each subcontractor.

- 12. To the fullest extent permitted by law, the Contractor shall indemnify, save, defend and hold harmless the Park District, including its commissioners, officers, officials, agents, volunteers and employees (collectively "Park District") from and against any and all liabilities, obligations, claims, damages, penalties, wage and hour claims, cause of actions, costs and expenses (including reasonable attorney and paralegal fees) arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense is attributable to the bodily injury, sickness, disease or death, or injury to or destruction of a tangible property, other than the Work itself, including the loss of use resulting therefrom and is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, subcontractor/s, and/or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, except to the extent caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph. Contractor shall similarly protect, indemnify and hold and save harmless the Park District, its commissioners, officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses including but not limited to legal fees incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of, any provision of this Agreement.
- 13. Contractor acknowledges and agrees that s/he/it will comply with all applicable laws, rules and regulations promulgated by any federal, state, county, municipal, park district or any other governmental unit or regulatory body or court.
- 14. Contractor represents and warrants that Contractor has the skills and knowledge necessary to perform the work in a safe, proper, efficient, thorough, timely, satisfactory manner and understands that the Park District is relying on such representation in contracting with Contractor herein.
- 15. If the Contract Sum exceeds \$50,000, a Performance Bond and a Labor and Material Payment Bond, each for 100% of the Contract Sum and compliant with the requirements of the Illinois Public Construction Bond Act shall be provided to the Park District by the Contractor or, in lieu of Bonds, a Non-Diminishing Irrevocable Letter of Credit shall be provided by the Contractor to the Park District, not later than twenty (20) days after execution of this Agreement, but in either case, no later than its commencement date of the Work.
- 16. All work shall be guaranteed by the Contractor for one year from date of installation/completion against all defects in material, equipment and workmanship. Guarantee shall also cover the repair of damage to any part of the premises resulting from defects in material, equipment and workmanship to the satisfaction of the Park District. Repairs, if required, shall be done promptly at no cost to the Park District. Written documentation verifying warranty will be given to the Park District upon installation.
- 17. Contractor must complete, execute and return with their signed Agreement the Bidder's Certification attached hereto, certifying that such Contractor is not barred from contracting with any unit of local government by virtue of having been convicted of bid-rigging or bid-rotating.
- 18. This Agreement constitutes the entire agreement between the Parties pertaining to the subject matter hereof and supersedes all prior or contemporaneous agreements and understandings, either oral or written, of the Parties in connection therewith. No modification of this Agreement shall be effective unless made in writing, signed by both Parties and dated after the date hereof. This Agreement is non-assignable by Contractor.

#### 19. Liquidated Damages

Design-Builder understands that if Substantial Completion is not attained by the Scheduled Substantial Completion Date, Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if Substantial Completion is not attained by a date to be determined prior to signature of contract, Design-Builder shall pay Owner Five Hundred Dollars \$ 500.00 as liquidated damages for each day that Substantial Completion extends beyond the LD Date.

#### PROJECT SPECIFICATIONS 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

#### **GENERAL**

The purpose of these specifications is to describe the cooling tower and the installation. Please refer to the specifications provided to assist you with your bid proposal.

Questions may be directed to Matt Marubio, Building Services Foreperson, at mmarubio@wilpark.org. or

Anna Murray, Parks Planner at amurray@wilpark.org

Please list any additional options your company would like to include.

#### **Scope**

It is the intent of this specification to describe the equipment and installation in all respects.

It is the intent of the Wilmette Park District to purchase units that meets the following specifications and requirements.

#### All bids at a minimum must meet the following specifications:

#### Base Bid - Centennial Cooling Tower Replacement

- Provide carbon steel w-beams to concrete slab at new location of evaporative cooling tower.
- Drain down of existing glycol piping between evaporative cooling tower and mechanical room heat exchanger.
- Preliminary testing of existing glycol flow.
- Testing of existing glycol solution and reporting to owner.
- Staging of existing glycol solution to reintroduce to the glycol system to onsite storage location.
- Make safe of existing evaporative cooling unit equipment to include:
  - Disconnecting (8) 4" GWS&R piping connections (from plate and frameHX).
  - o Disconnecting (2) 1-1/2" GWS&R piping connections (to compressor HX).
  - o Disconnecting (1) 2" makeup water connection (from mech room domestic water).
  - o Disconnecting (1) 1" chemical feed connections (from mech room chemical pump).
  - o Removal of existing fill panels to reduce weight of unit prior to relocating.
  - o Disconnecting of split sections of unit to relocate unit is sections.
  - o Removal of expansion tank and staged for reinstallation.
  - o Removal of recirculating pump and PVC pipe header prior to relocation.
- Crane rental and rigging of existing evaporative cooling tower to parking lot area for staging removal.
- Demolition of existing PVC GWS&R, makeup water, chemical feed water between the mechanical room and the prior location of the tower, including the removal of the tower header.
- Dumpster rental and disposal of demolished piping and old tower components that have been replaced.
- Coring and cutting of walls and deck to provide penetrations to route the new piping.
- Provide new stainless steel replacement piping for the demolished PVC GWS&R, makeup water, chemical feed water piping, including associated hangers, pipe stands and supports.
- Pressure testing of new piping.
- Insulation of replacement piping with fiberglass insulation with all service jacket and PVC fitting covers. Exterior piping to be jacketed with aluminum.
- Flashing of wall at piping penetrations.
- System fill for the glycol piping with existing staged glycol solution.
- Post installation hydronic balancing to pre-test readings.

- One-year warranty on newly installed mechanical system.
- Closeout documents as-built drawing, hydronic balancing reports, warranty letter.
- To provide replacement propylene glycol solution and disposal of the existing propylene glycol solution.
- To provide pan water silencers sound improvement option including submittal data on performance.
- Include ladders and platform option

#### **Concrete Pad and Sound Attenuation Wall**

- Demo existing parking lot and sidewalk as shown on plans.
- Infill opening with CMU as shown on plans.
- Pour new concrete footings, and concrete pad as shown on plans.
- Install new screen wall as shown on plans.

Bids must say how many days removal and installation will take for the base bid.

Hours of operation are Monday – Friday 7am – 5pm. Work is to be performed during regular business hours with work being done in sections to allow public access.

#### BID PROPOSAL 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

#### **Bidder Notes**

1. The bidder shall submit product catalog on all materials being proposed.

Any exceptions or deviations from these bid specifications must be addressed in writing and submitted with the bid.

#### **Prices and Payments**

- 1. All bid prices shall be complete & include the equipment, materials, installation, warranty & delivery of the products.
- 2. Payment shall be made in accordance with these specifications and the Bid Proposal submitted by the Bidder. Full payment will be made upon completion of work by Contractor and inspection by the Owner. The flooring will be inspected by a representative of the Park District to make sure of proper installation upon completion of the project.

#### **Delivery**

Products purchased under this contract shall be delivered to the Wilmette Park District at the work location on the day(s) of installation.

#### **Warranty**

A description of all applicable warranties as well as copies of said warranties shall be submitted with the bid.

#### TO: Wilmette Park District - Centennial Cooling Tower Replacement

The undersigned bidder has carefully examined the specifications for the Centennial flooring project and installation in Wilmette, Illinois as prepared by the Wilmette Park District.

The undersigned bidder understands the Instructions To Bidders, General Conditions, Scope of work Specifications, and Bid Proposal within this document.

The undersigned bidder hereby states that they propose to furnish and deliver to the Wilmette Park District the **cooling tower** described in the specifications including all details within pages.

The undersigned bidder will accept as full and complete payment therefore the <u>bid amount which is the</u> summation of the cost of the items of work and is equal to the summation of the extension of the unit prices.

| CONTRACTOR AGENCY:                | <br> |
|-----------------------------------|------|
|                                   |      |
| CONTRACTOR REPRESENTATIVE:        |      |
| ooming to refer the second second |      |
|                                   |      |
| (SEAL)                            |      |

| Bid      | Demo cost | Material cost | Install cost | Total cost | Anticipated amount of time to complete |
|----------|-----------|---------------|--------------|------------|--|
| Base Bid | \$        | \$            | \$           | \$         |  |

| Anticipated installation completion date, noting that proposals |  |
|---|--|
| will be accepted or rejected within 30 days after bid opening:  |  |

#### CONTRACTOR REFERENCES 2026 Centennial Cooling Tower Replacement WILMETTE PARK DISTRICT

| BIDDING CONTRACTOR:                   |  |  |
|---------------------------------------|--|--|
| CONTACT:                              | SIGNATURE:   |  |
| PHONE:                                |  |  |
|                                       |  |  |
| Contractor References: Please include | de three references with which the Contractor has completed of owner, contact person, address, and phone number. |  |
| Reference 1:                          |  |  |
| Name of owner:                        |  |  |
| Contact person:                       | Address:   |  |
| Phone Number:                         | Dollar Amount: \$  |  |
| Project Description:                  |  |  |
| Contact person:Phone Number:          | Address:<br>Dollar Amount: \$  |  |
| Reference 3:                          |  |  |
|                                       | Addross:   |  |
|                                       | Address:<br>Dollar Amount: \$  |  |
|                                       |  |  |
| , , ,                                 |  |  |



EVAPCO, INC.

P. O. Box 1300 Westminster, Maryland 21158, USA

Telephone (410) 756-2600 FAX (410) 756-6450

August 13, 2013

Ms. Colleen Webster M & M Refrigeration, Inc. 412 Railroad Avenue P.O. Box 449 Federalsburg, MD 21632

RE: Your Purchase Order 10330

EVAPCO Serial 13-526925

(1) eco-ATWB 12-4L20 Closed Circuit Cooler

PROJECT: MM CW-010313

#### Dear Ms. Webster:

Please find the enclosed revised submittal data for the above referenced order. The revised submittal data is provided to show the following changes:

\*\*\*Removed the platform and ladder from unit.

This order is being manufactured at our Greenup factory using the highest quality materials and will be assembled in accordance with EVAPCO's strict quality control guidelines. All EVAPCO® products undergo a mechanical test prior to shipment to ensure proper field performance.

This order is in our production schedule for shipment on or before 8/20/2013. If you experience any delays in the project, which would affect your shipment requirements, please contact EVAPCO as soon as possible.

Thank you for selecting EVAPCO as your supplier. We appreciate your business and look forward to working with you in the future.

Sincerely,

EVAPCO, INC.

Beth Fox

Beth Fox

Assistant Regional Sales Manager

ENCLOSURE(S)

cc:



August 13, 2013

### **EVAPCO® SUBMITTAL PACKAGE**

PROJECT MM CW-010313 UNIT(1) ECO-ATWB 12-4L20 CLOSED CIRCUIT COOLER

| CUSTOMER N          | M & M REFRIGERATION, INC.    | P.O      | 10330                 |
|---------------------|------------------------------|----------|-----------------------|
| EVAPCO SERIAL NO.   | 13-526925                    | ENGINEER | M & M                 |
|                     | SUBMITTAL DAT                | A ENCLO  | SED                   |
| <u>DESCRIPTION</u>  |                              |          | DOCUMENT NUMBER       |
| LETTER              |                              |          | REVISED LETTER        |
| PERFORMANCE AND M   | MECHANICAL SPECIFICATIONS    |          | ATW12ST-ST            |
| UNIT CERTIFIED DRAW | WING                         |          | EG122008-DRA-001 [C3] |
| STEEL SUPPORT CONF  | FIGURATION                   |          | SLAW1220DB            |
| MOTOR DAVIT DRAWI   | ING                          |          | MDAITTVW.DC           |
| SUPER LOW SOUND FA  | AN DISCHARGE HOOD WITH DAMPE | RS       | SDAISL18DD            |
| POSITIVE CLOSURE DA | AMPER MOTOR ACTUATOR         |          | X1AU0000-EB           |
| CERTIFICATE OF COM  | PLIANCE                      |          | IBCIDCOC001.pdf       |

AOS2636

GUARANTEE OF THERMAL PERFORMANCE



#### PERFORMANCE AND MECHANICAL SPECIFICATIONS

#### **EVAPCO® CLOSED CIRCUIT COOLER**

| CUSTOMER: M &    | M Refrigeration, Inc.              |              |                  |              |
|------------------|------------------------------------|--------------|------------------|--------------|
| ENGINEER: M &    | М                                  |              |                  |              |
| UNIT: (1) eco-AT | WB 12-4L20 Closed Circuit Cooler   |              |                  |              |
| CUSTOMER P.O.    | 10330                              | EVAPCO SERI  | IAL NO.          | 13-526925    |
| CAPACITY:        | 1020 GPM OF<br>20% ETHYLENE GLYCOL | 91 °F IN     | <u>86 °F</u> OUT | 80 °F E.W.B. |
| FAN MOTOR:       | (1) 25 HP                          | ELEC. SPEC.  | 460/3/60         |              |
| PUMP MOTOR:      | (1) 10 HP                          | ELEC. SPEC.  | 460/3/60         |              |
| COIL PRESSURE    | DROP: 8 PSIG                       | DRIVES SIZEI | O FOR 0" ESP.    |              |

UNIT TYPE Factory assembled, induced draft, counterflow.

IBC COMPLIANCE The unit structure has been designed, analyzed, and constructed in accordance with

the latest edition of International Building Code (IBC) Regulations for seismic loads

up to 1g and wind loads up to 145psf.

CONSTRUCTION Heavy gauge mill hot-dip galvanized steel casing and pan. Hot-dip galvanized steel

channel and angle supports. All galvanized steel is coated with a minimum of 2.35 ounces of zinc per square foot of area (G-235 designation). During fabrication, all

panel edges are coated with a 95% pure zinc-rich compound.

MAKE UP FLOAT VALVE

ASSEMBLY\*
PAN STRAINER\*

Brass float valve with adjustable plastic float.

All type 304 stainless steel construction with large area removable perforated

screens.

ACCESS Sliding door in the upper casing for fan drive and water distribution system access.

Removable louver panels on all four sides of the unit for pan and sump access.

**BLEED-OFF\*** Waste water bleed line with adjustable valve provided.

PUMP\* EISA compliant, close-coupled centrifugal pump with mechanical seal. The pump is

installed in a vertical position so that water will drain from the pump when the cold water basin is emptied. Pump motor is totally enclosed with protective canopy for

outdoor operation.

FAN SHAFT Solid shaft of ground and polished steel. Exposed surface coated with 95% pure

zinc-rich compound.

FAN SHAFT BEARINGS Heavy-duty, self aligning ball type bearings with extended lubrication lines to grease

fittings on the access door frame. Bearings are designed for a minimum L-10 life of

75,000 hours.

FAN MOTOR Totally enclosed, ball bearing type electric motor with 1.15 service factor suitable

for outdoor service.

FAN DRIVE The fan drive is a multi-groove, solid back, reinforced neoprene V-belt type with

taper lock sheaves designed for 150% of the motor nameplate horsepower. Fan and motor sheaves are constructed of aluminum alloy. The fans and fan sheaves shall be mounted on the shaft with a special coated bushing for maximum corrosion

protection.

COIL Thermal-Pak Ellipti-fin coil design of all prime surface steel, encased in steel

framework with entire assembly hot-dip galvanized after fabrication. All coil rows feature elliptical extended surface fins designed with sloping tubes for liquid

drainage and tested to 390 psig air under water. (Patent No. 5799725)

WATER DISTRIBUTION SYSTEM Heavy-duty molded nylon ZM spray nozzles with large 1-5/16" diameter opening

and internal sludge ring to eliminate clogging. ZM nozzles are threaded into Schedule-40 Polyvinyl Chloride headers equipped with removable end plugs for

ease of cleaning.

ELIMINATORS The eliminators are constructed entirely of Polyvinyl Chloride (PVC) in easily

handled sections. Design incorporates three changes in air direction and limits the

water carryover to a maximum of 0.001% of the circulating water rate.

AIR INLET LOUVERS The air inlet louvers are constructed from UV inhibited polyvinyl chloride (PVC)

and incorporate a framed interlocking design that allows for easy removal of louvers for access to the entire basin area for maintenance. The louvers have a minimum of two changes in air direction and are of a non-planar design to prevent splash-out, block direct sunlight and debris from entering the basin. (Patent

Pending)

PASSIVATION All evaporative cooling equipment utilizing galvanized construction requires initial

passivation to maximize the service life of the equipment. The sites water treatment vendor should be contacted several weeks prior to adding any water to the system to

provide a passivation plan along with associated passivation plan costs.

SUPER LOW SOUND AXIAL Unit is provided with SUPER Low Sound Fan(s). Fans are high efficiency axial

propeller type with non-corrosive FRP hub and blade construction. The one-piece molded heavy duty fan construction utilizes a forward swept blade design for superior sound quality. Each fan is statically balanced and installed in a closely fitted cowl with venturi air inlet for maximum fan efficiency. The fan cowl is

covered with a heavy gauge hot dip galvanized steel fan guard.

\*OMITTED ON UNITS FOR REMOTE SUMP OPERATION

PROPELLER FAN(S)

**Evapco Serial Number: 13-526925** Page 2 of 3

#### **SPECIAL REMARKS:**

- Motor space heaters.
- Additional Coil Circuits (22.4 GPM of 50% Propylene Glycol), ( 91  $^{\circ}$ F/86  $^{\circ}$ F/80  $^{\circ}$ F/8.3 PSIG).
- Motor davit and base.
- Unit Arranged with High Flow Coils.
- SUPER Low Sound Axial Propeller Fan(s).
- Unit(s) Arranged with High Flow Coil.
- Straight-sided Discharge Hood with Dampers (\*See discharge hood drawing for additional weight).
- IBC Compliant up to 1g.
- Pump Motor(s): EISA Compliant

**Evapco Serial Number: 13-526925** Page 3 of 3

#### EVAPCO, INC. UNIT MODEL # DATE SERIAL # N.T.S. EG122008-DRA-001 **CLOSED CIRCUIT COOLERS** eco-ATW 12-4L20 04/29/13 13-526925 ACCESS DOOR NOTES: 1. (M)- FAN MOTOR LOCATION 2. HÉAVIEST SECTION IS UPPER SECTION 3. MPT DENOTES MALE PIPE THREAD FPT DENOTES FEMALE PIPE THREAD BFW DENOTES BEVELED FOR WELDING FACE 2 4. +UNIT WEIGHT DOES NOT INCLUDE **PLAN VIEW** ACCESSORIES (SEE ACCESSORY DRAWINGS) 11'-10" [ 3607 ] 5. MAKE-UP WATER PRESSURE 20 psi MIN [137 kPa], 50 psi MAX [344 kPa] 1/4 [8] FPT VENT 6. \*-APPROXIMATE DIMENSIONS DO NOT USE FOR PRE-FABRICATION OF CONNECTING 7. VENT PROVIDED ON CLOSED CIRCUIT COOLERS ONLY 20'-0" 19 3/4 <sub>\*</sub> [ 502 ] 6096] FACE 1 15 1/2 \* - 7 [ 178 ] [ 393 ] 30 3/4 [ 781 ] 1 1/2 [40] BFW FLUID IN (4) 4 [100] BFW 123 5/8 INLET 1 1/4 <sub>\*</sub> [ 32 ] [ 3140 ] (4) 1/2 [15] FPT VENT (CLOSED CIRCUIT 0 COOLERS ONLY) 16'-5 7/8" [ 5026 ] 30 3/4 <sub>\*</sub> [ 781 ] - 1 1/2 [40] BFW FLUID OUT 1 1/4 <sub>\*</sub> (4) 4 [100] BFW OUTLET [ 152 ] 74 1/4 2 [50] MPT MAKE-UP [ 1886 ] 25 1/4 [ 641 ] 3 5/8 [ 92 ] 3 [80] MPT DRAIN └─ 3 [80] MPT [ 432 ] 5 1/4 [ 133 ] 4 1/4 [ 108 ] 92 [ 2337 ] 11'-10" [ 3607 ] 26 [ 660 ] 20'-0" 6096] FACE 2 FACE 1 SHIPPING OPERATING NO. OF SHIPPING SECTIONS HEAVIEST SECTION 33310 lbs+ [15109] kg+ 49150 lbs+ [22294] kg+ 28800 lbs+ [13063] kg+ 2 WEIGHT WEIGHT WEIGHT

# EVAPCO, INC.



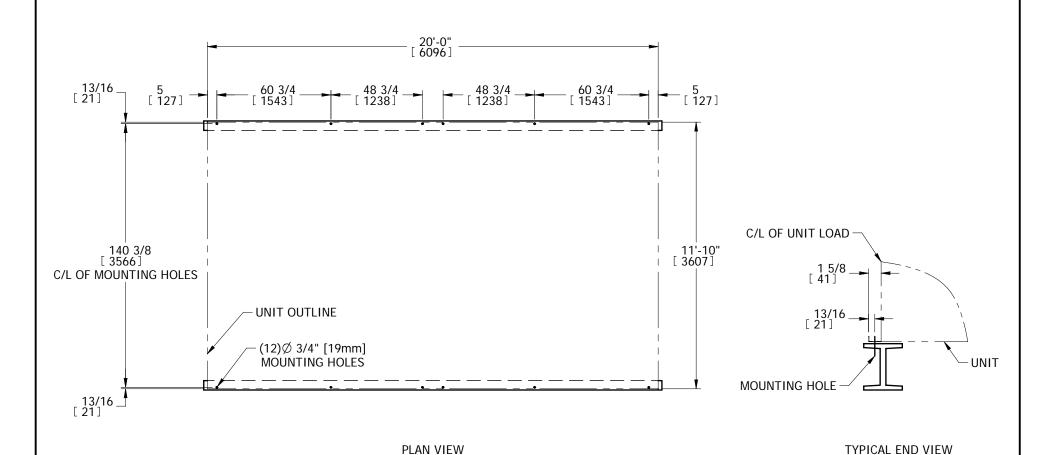
STEEL SUPPORT CONFIGURATION

UNIT:

12x20 INDUCED DRAFT COOLER/CONDENSERS

DWG. #

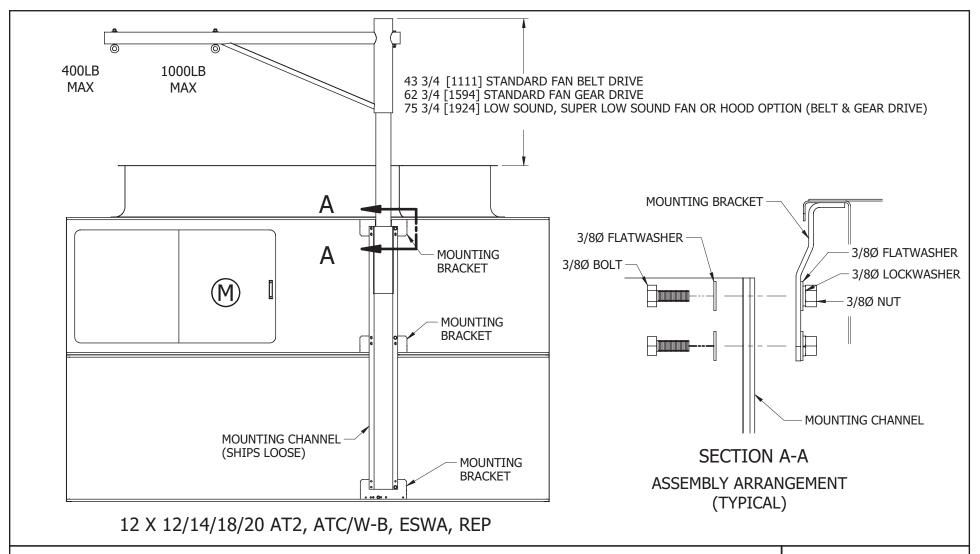
SLAW1220-DB



#### NOTES:

- BEAMS SHOULD BE SIZED IN ACCORDANCE WITH ACCEPTED STRUCTURAL PRACTICES.
   MAXIMUM DEFLECTION OF BEAM UNDER UNIT TO BE 1/360 OF UNIT LENGTH NOT TO EXCEED 1/2" [13mm].
- 2. DEFLECTION MAY BE CALCULATED BY USING 55% OF THE OPERATING WEIGHT AS A UNIFORM LOAD ON EACH BEAM. SEE CERTIFIED PRINT FOR OPERATING WEIGHT.
- SUPPORT BEAMS AND ANCHOR HARDWARE ARE TO BE FURNISHED BY OTHERS. ANCHOR HARDWARE TO BE ASTM - A325 5/8" [16mm] BOLT OR EQUIVALENT.
- 4. BEAMS MUST BE LOCATED UNDER THE FULL LENGTH OF THE PAN SECTION.
- 5. SUPPORTING BEAM SURFACE MUST BE LEVEL. DO NOT LEVEL THE UNIT BY PLACING SHIMS BETWEEN THE UNIT MOUNTING FLANGE AND THE SUPPORTING BEAM.

- ANCHORING ARRANGEMENT SHOWN HAS A MAXIMUM WIND RATING OF 145 PSF [6.94 KPa] ON CASED VERTICAL SURFACES.
- 7. THE FACTORY RECOMMENDED STEEL SUPPORT CONFIGURATION IS SHOWN. CONSULT THE FACTORY FOR ALTERNATE SUPPORT CONFIGURATIONS.
- 8. UNIT SHOULD BE POSITIONED ON STEEL SUCH THAT THE ANCHORING HARDWARE FULLY PENETRATES THE BEAM'S FLANGE AND CLEARS THE BEAM'S WEB.



NOTES:

A. M= MOTOR

- B. DAVIT IS DESIGNED FOR RAISING OR LOWERING EVAPCO FAN MOTORS OR FANS AND GEARS AS UNIT IS EQUIPPED. DO NOT USE FOR ANY OTHER PURPOSE.
- C. DAVIT IS DESIGNED TO PIVOT FREELY AND CAN BE REMOVED FROM ITS MOUNTING BASE FOR STORAGE.
- D. DIMENSIONS LISTED AS FOLLOWS: ENGLISH [METRIC]

  IN [mm]



**REMOVABLE DAVIT** 

MDAITTVW-DC

CONFIDENTIAL
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# EVAPCO, INC.



UNIT: STRAIGHT SIDED DSCH HOOD W/DAMPERS ALL 12X/24X18, 20 INDUCED DRAFT UNITS SDAISL18DD-SLSF PLACE ON ACCESS -DOOR SIDE (4) LIFTING **U-BOLTS** (2) DAMPER 5 5/8 [ 140 ] 16 1/2 **ACTUATOR** [ 420 ] 47 1/4 30 3/4 [ 1200 ] [ 780 ] Н 142 [ 3610 ] [ 4000 ]

- 1. TOTAL HEIGHT OF UNIT WILL BE 16 1/2" [420] PLUS HEIGHT (H) FROM UNIT CERTIFIED.
- 2. WEIGHT OF HOOD IS 2100 LBS [953 KG.].
- 3. DAMPER IN FULLY OPEN POSITION, ADD 3" [76] TYP. TO OVERALL HOOD HEIGHT.
- 4. DAMPER LINKAGE AND ACTUATORS ARE FACTORY ASSEMBLED. WIRING AND ACTUATOR CONTROLS FURNISHED BY OTHERS. 120 VOLT POWER SUPPLY REQUIRED.
- 5. BTM SECTION OF HOOD WILL SHIP MOUNTED ON FAN DECK. UPR SECTION WILL SHIP ON PLENUM.
- 6. SEE ADDITIONAL INFO IN RIGGING BOX.

# EVAPCO, INC.



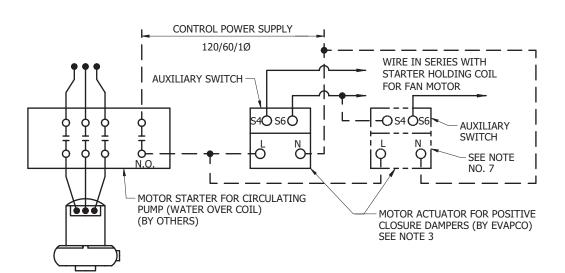
TITLE PCD MOTOR ACTUATOR WIRING

DESCRIPTION:

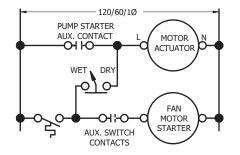
SUGGESTED CONTROL SEQUENCE

DWG. #

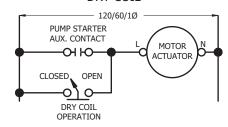
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## AUTOMATIC OPERATION DRY COIL



# MANUAL OPERATION DRY COIL



#### NOTES

- 1. THE DAMPER MOTOR ACTUATOR SHOULD BE CONTROLLED IN CONJUNCTION WITH THE OPERATION OF THE PUMP CIRCULATING WATER OVER THE COOLING COIL. THE PURPOSE OF A POSITIVE CLOSURE DAMPER IS TO DECREASE HEAT LOSS DURING NO LOAD AND THIS SITUATION OCCURS WHEN THIS PUMP MOTOR CYCLES OFF.
- 2. NOTE THAT THE STARTER FOR THIS CIRCULATING PUMP MOTOR SHOULD BE PROVIDED WITH ONE ADDITIONAL SET OF CONTACTS AS SHOWN.
- 3. MOTOR ACTUATOR IS A 270 in-lb, TWO POSITION ACTUATOR WITH SPRING RETURN, POWER REOUIREMENT IS 21 VA AT 120 VOLT/60 CYCLE/1 PHASE.
- 4. MOTOR ACTUATORS ARE FACTORY MOUNTED. ALL WIRING AND ACTUATOR CONTROLS ARE BY OTHERS.
- 5. TO PREVENT FAN MOTORS FROM STARTING UNTIL DAMPERS ARE FULLY OPEN, MOTOR ACTUATOR IS FURNISHED WITH AN INTERNAL AUXILIARY SWITCH. AUXILIARY SWITCH IS A SINGLE POLE DOUBLE THROW, WHICH CLOSES AT THE END OF THE POWER STROKE (DAMPERS OPEN). ELECTRICAL RATING: 1/2 AMP AT 120 VOLTS. FAN MOTOR STARTER CONTROL MUST BE WIRED SO THAT FAN MOTOR(S) WILL NOT START UNTIL AUXILIARY SWITCH CONTACT CLOSURE (DAMPERS OPEN).
- 6. FOR DRY OPERATION OF THE COOLER (FAN OPERATION ONLY) DAMPER ACTUATOR CONTROL MUST BE MODIFIED.
  - FOR MANUAL OPERATION HAND SWITCH TO OPEN DAMPERS MUST BE WIRED IN PARALLEL WITH THE PUMP STARTER CONTACTS.
  - FOR AUTOMATIC OPERATION CONTROL POWER FOR DAMPER ACTUATOR MUST ORIGINATE FROM FAN MOTOR CONTROL CIRCUIT BEFORE AUXILIARY CONTACTS. HAND SWITCH MUST BE PROVIDED TO CHANGE CONTROL FROM PUMP MOTOR STARTER TO FAN CONTROL CIRCUIT FOR DRY OPERATION.
- 7. SECOND ACTUATOR AND WIRING SHOWN DOTTED REQUIRED ON MODELS HAVING TWO ACTUATORS PER HOOD AS SHOWN ON GENERAL ARRANGEMENT DRAWING.



# **Certificate of Compliance**

AT, USS, UAT, UT Cooling Towers eco-ATW/WE, ATWB and ESWA Closed Circuit Coolers eco-ATC, ATC-E Evaporative Condensers

Are certified to meet or exceed the Seismic and Wind Load Provisions set forth in the applicable building codes for this project.

These products have been manufactured following all applicable quality assurance programs.



Applicable Building Codes: IBC 2006/2009 ASCE-7 NFPA 5000

Referenced Report: VMA-43387

Approval Agency: VMC Seismic Consulting Group



EVAPCO...Specialists in Heat Transfer Products and Services.

ID IBC COC 001



# **Guarantee of Thermal Performance**

EVAPCO® unequivocally guarantees the thermal performance of its equipment as shown on the certified drawings, when the equipment is installed in accordance with good engineering practice. If after installation and start-up there is any question regarding thermal performance of the equipment, at the owner's request EVAPCO will send its engineers to the jobsite to conduct a performance test. This test may be observed by the owner and the consulting engineer or by their authorized representatives. If the results of the evaluation show the equipment to be deficient, EVAPCO will make the necessary repairs or alterations to correct the deficiency at no cost to the owner. If the equipment is found to be performing in accordance with its certified drawing, the owner is expected to reimburse the company for its costs associated with this performance test. This guarantee is subject to all conditions and limitations set forth in the express warranty that applies to the equipment.



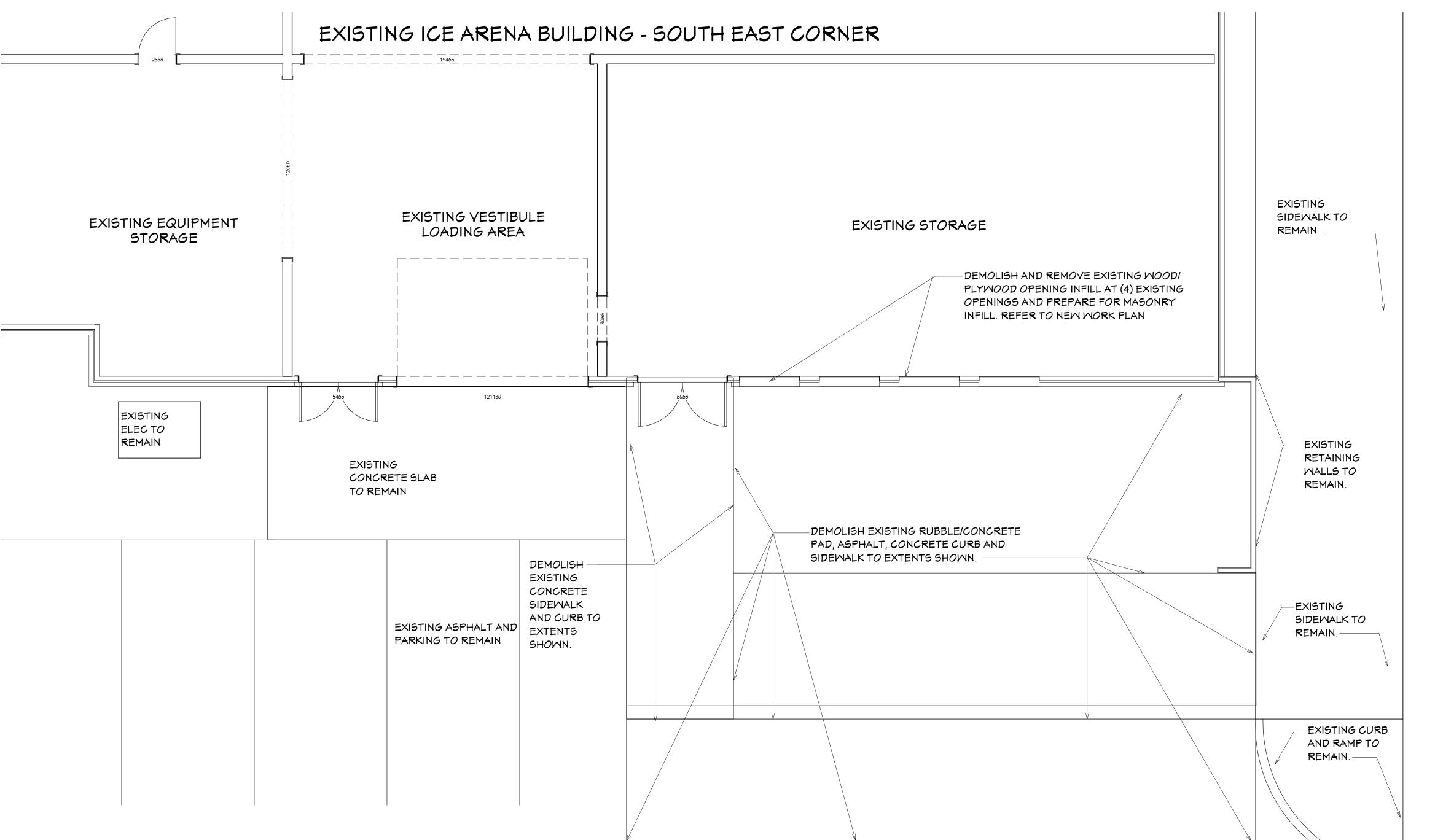


EVAPCO...Specialists in Heat Transfer Products and Services.

# GENERAL NOTES - RELOCATION OF COOLING TOWER AND ASSOCIATED WORK

- 1. ALL SUB-CONTRACTORS SHALL REVIEW ALL DRAWINGS FOR SCOPE AFFECTING THEIR WORK. CONCRETE SLAB, STEEL, EXISTING STEEL, COOLING TOWER PLACEMENT AND FENCING SHALL ALL BE COORDINATED BY ALL CONTRACTORS.
- 2. EXISTING CONDITIONS ARE READILY AVAILABLE AND SHALL BE VIEWED PRIOR TO BIDDING.
- 3. NO CHANGE ORDERS WILL BE APPROVED FOR CONDITIONS READILY ACCESSIBLE PRIOR TO BID.
- 4. REFER TO SPECIFICATIONS WHERE NOTED FOR WORK.
- 5. REFER TO BIDDING DOCUMENTS FOR SCHEDULE REQUIRED FOR THE PROJECT. THE ICE ARENA WILL BE CLOSED FOR A MINIMUM AMOUNT OF TIME AS SCHEDULED AND LIQUIDATED DAMAGES WILL BE ASSESSED IF PROJECT IS NOT COMPLETED ON TIME.





1/A-1 EXISTING SOUTH EAST CORNER - SITE AND BUILDING DEMOLITION PLAN SCALE: 1/4" = 1'-0"

MILMETTE PARK DISTRICT
CENTENNIAL ICE ARENA
RELOCATION OF EXISTING COOLING TOWER
RELOCATION OF EXISTING COOLING TOWER
2300 OLD GLENVIEW ROAD

TITLE, DEMOLITION P.

DRAMINGS PROVIDED BY:
OLESON DESIGN STUDIO, PLLC
116 S. IL ROUTE 83, UNIT C
GRAYSLAKE, IL 60030

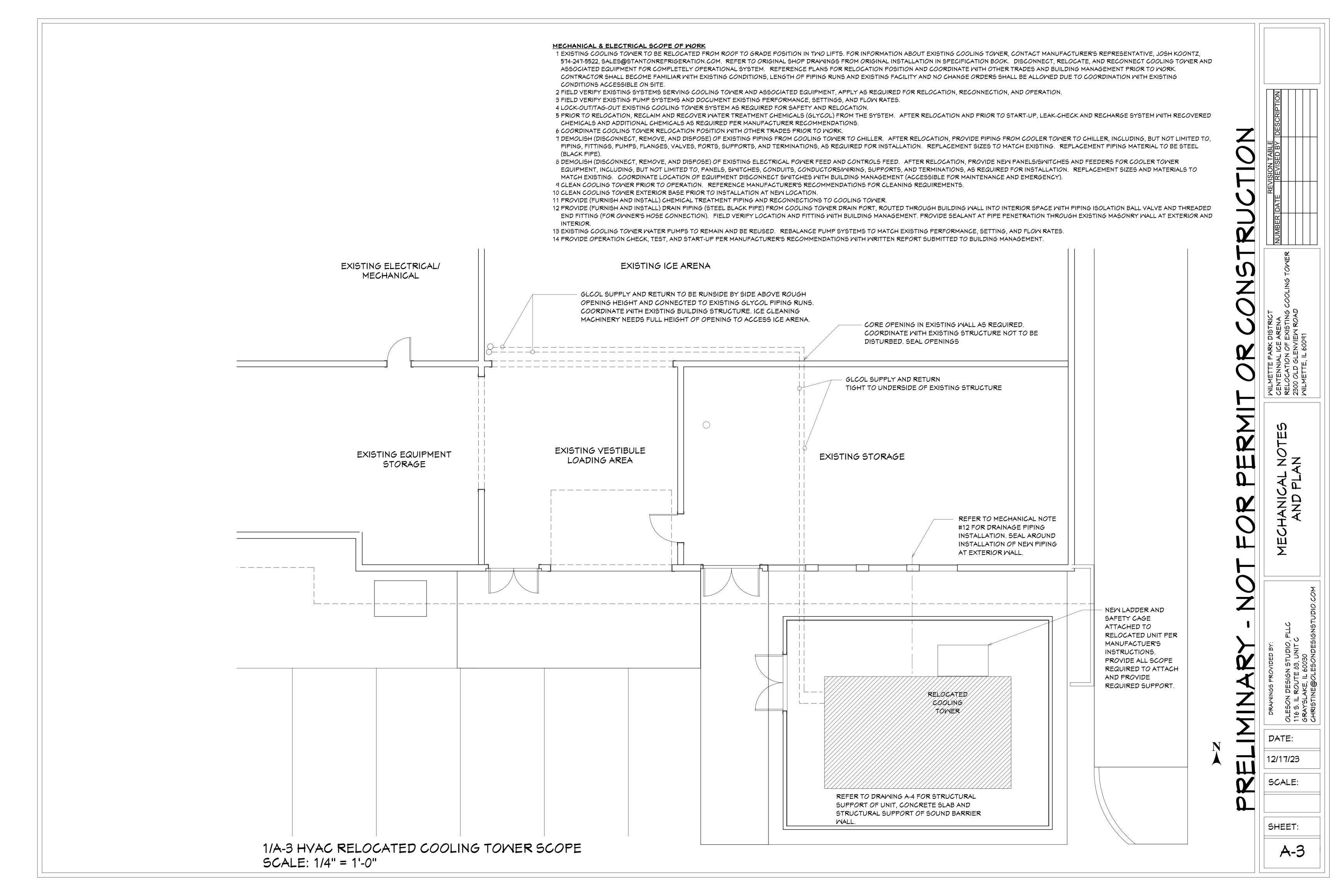
DATE:

12/17/23 SCALE:

SHEET:

A-1

### SCOPE NOTES - RELOCATION OF COOLING TOWER AND ASSOCIATED MORK 1. ROOF REPAIR AFTER MOVE OF COOLING UNIT AND PROTECTION OF EXISTING DAMAGED ROOF DECK AFTER REMOVAL OF COOLING UNIT IS BY OTHERS (SEPARATE ROOFING CONTRACTOR). 2. DISCONNECT COOLING UNIT FROM EXISTING STEEL BEAMS, ANGLES AND 3. SEPARATE EXISTING STEEL BEAM FRAME FROM TUBE STEEL POST SUPPORTING EXISTING FRAME. REMOVE STEEL PLATES WELDED TO EXISTING BEAM FRAME IF POSSIBLE. IF NOT POSSIBLE, EXISTING STEEL PLATES MAY BE ATTACHED TO NEW STEEL PLATES AT NEW LOCATION. 4. REMOVE STEEL FRAME FROM ROOF AND PREPARE EXISTING STEEL FOR REUSE IN NEW LOCATION. CLEAN, REMOVE RUST AND RECOAT ALL STEEL PARTS TO BE REUSED. REFER TO STEEL PREP AND PAINTING SPECIFICATION FOR LEVEL OF NEW FINISH COAT TO BE ACHIEVED. 5. INSTALL REFINISHED STEEL FRAME ONTO NEW TUBESTEEL POSTS AND PLATES AS INDICATED ON DRAWING A-4. 6. PROVIDE SOUND ATTENUATION FENCE AS DETAILED AN SPECIFIED. SUBMIT SHOP DRAWINGS FOR SOUND ATTENUATION FENCE, MOUNTING AND COMPONENTS. REFER TO SPECIFICATION SECTION FOR NEW SOUND ATTENUATION FENCE. -REFER TO MECHANICAL SCOPE FOR PATH OF REPLACEMENT GLYCOL PIPING AND BUILDING ELEMENTS AFFECTED. EXISTING VESTIBULE EXISTING EQUIPMENT EXISTING STORAGE EXISTING LOADING AREA STORAGE SIDEWALK TO -INFILL (4) EXISTING OPENINGS WITH REMAIN 4" CMU BLOCK, 1" AIR SPACE AND 4" FACE BRICK TO MATCH EXISTING. SUBMIT BRICK SAMPLE FOR APPROVAL PRIOR TO ORDERING BRICK. NEW LADDER AND CAGE FOR EXISTING UNIT. REFER TO SPECIFICATIONS. RELOCATE EXI LINE OF +4.875" EXISTING -EXISTING RETAINING WALLS TO OVERHEAD TRANSFORMER REMAIN. INFILL AREA BETWEEN TO REMAIN SIDEWALK AND NEW CONCRETE PAD WITH SOIL OR GRANULAR FILL PROVIDE NEW 4", 4,000 PSI DRAINING TO THE SOUTH EXISTING CONCRETE SIDEWALK WITH CONCRETE SLAB 4.1 X 4.1 W.W.F. TO REMAIN LADDER AND SAFETY CAGE RELOCATED COOLING -EXISTING TOWER SIDEMALK TO REMAIN — MATCH EXIST WIDTH SLOPE TO NEW 6" 4,000 PSI CONCRETE SLAB WITH SOUTH #5 REBAR AT 12" O.C. BOTH WAYS, CENTER OF SLAB DEPTH. FOR PIERS TO SUPPORT EXISTING OR NEW STEEL EXISTING FRAME, REFER TO DRAWING A-4. CURB AND PROVIDE BROOM FINISH, NON-SLIP RAMP TO +4.875" FINISH AT CONCRETE SLAB. +0.0" REMAIN DATE: 12/17/23 REFER TO DRAWING A-4 FOR STRUCTURAL SLOPE PAD FROM EAST TO WEST AT 1/8" PER SUPPORT OF UNIT, CONCRETE SLAB AND FOOT, LEYEL ON WEST SIDE WITH NEW SCALE: STRUCTURAL SUPPORT OF SOUND BARRIER CONCRETE SIDEWALK SLOPED TO THE SOUTH. DESIGN TO BE ADDRESSED: MALL. CONCRETE PAD TO EXISTING BUILDING NEW CONC PAD TO SIDEWALK -SOUND BARRIER WALL INSIDE FACE SOUND BARRIER FENCE SHEET: 1/A-2 NEW WORK TO RELOCATE EXISTING COOLING TOWER PLAN SCALE: 1/4" = 1'-0" A-2



## STRUCTURAL NOTES:

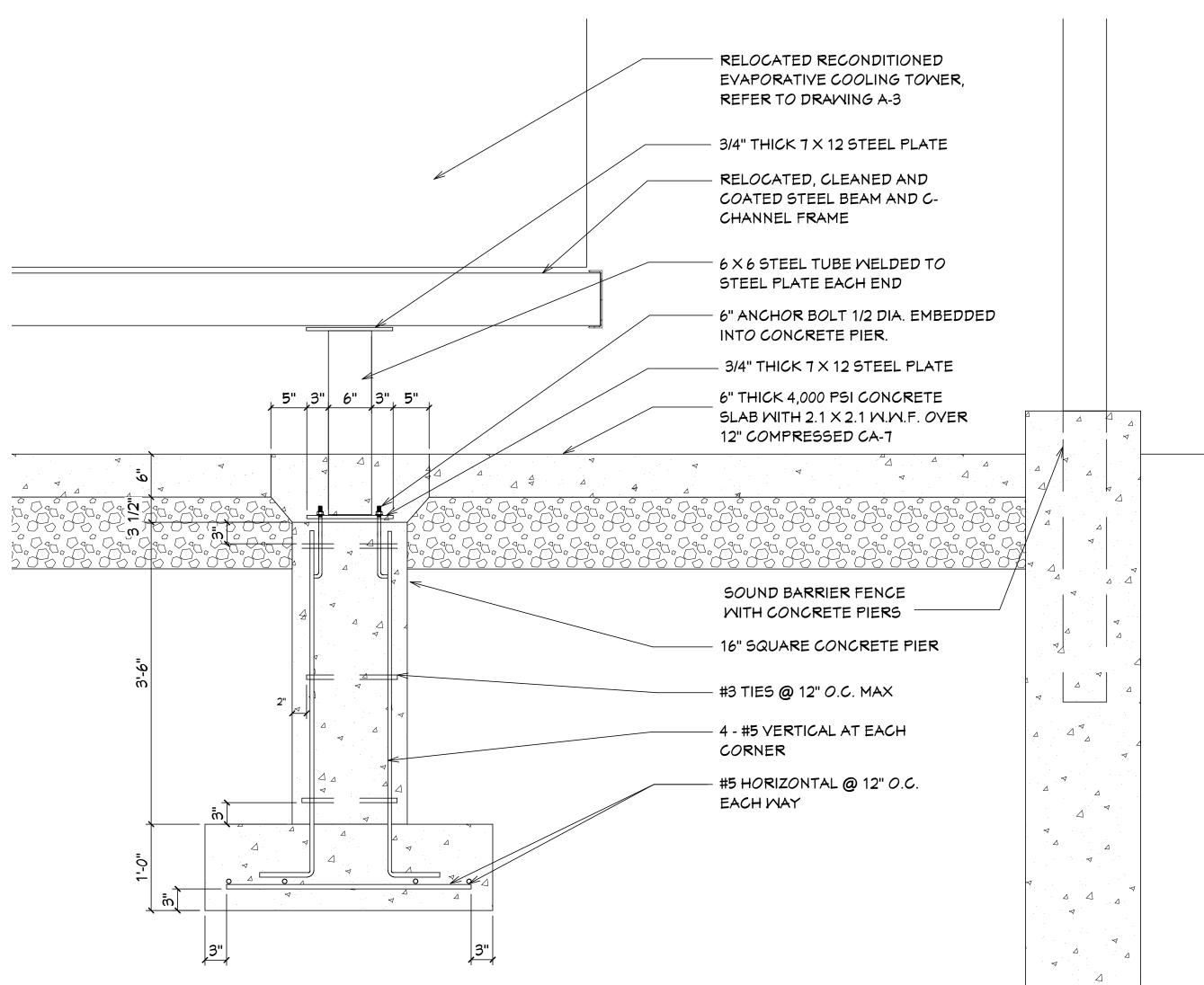
- 1. FOOTINGS/FOUDATIONS SHALL BE PLACED ON UNDISTURBED SOIL HAVING MINIMUM SAFE ALLOWABLE BEARING PRESSURE OF a>/ 3000 PSF AND A SUB-TRADE MODULUS K>/100 PCI. A MINIMUM OF 42" OF FROST PROTECTION SHALL BE MAINTANINED ABOVE ALL FOOTINGS.
- 2. UNSUITABLE SOIL SHALL BE REMOVED AND REPLACED WITH APPROVED MATERIAL. ALL STRUCTUAL FILL SHALL BE CLEAN, GRANUALR MATERIAL COMPACTED TO A MIMUM OF 95% MODIFIED PROCTOR (ASTM D1557). MATERIAL SHALL BE PLACED IN 8" LIFTS AND SHALL BE PROOF ROLLED AND VERIFIED BY NUCLEAR DENSITY TESTING (ASTM D2922), OR SIMILAR METHOD.
- 3. EXCAVATIONS SHALL BE FREE OF STANDING WAATER, SNOW AND/OR ICE. DO NOT PLACE FOOTINGS, SLAB OR FOUNDATIONS ON FROZEN GROUND
- 4. VERIFY ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK.
- 5. MAINTAIN PROPER DRAINAGE AND SOIL EROSION CONTROL.

# CONCRETE:

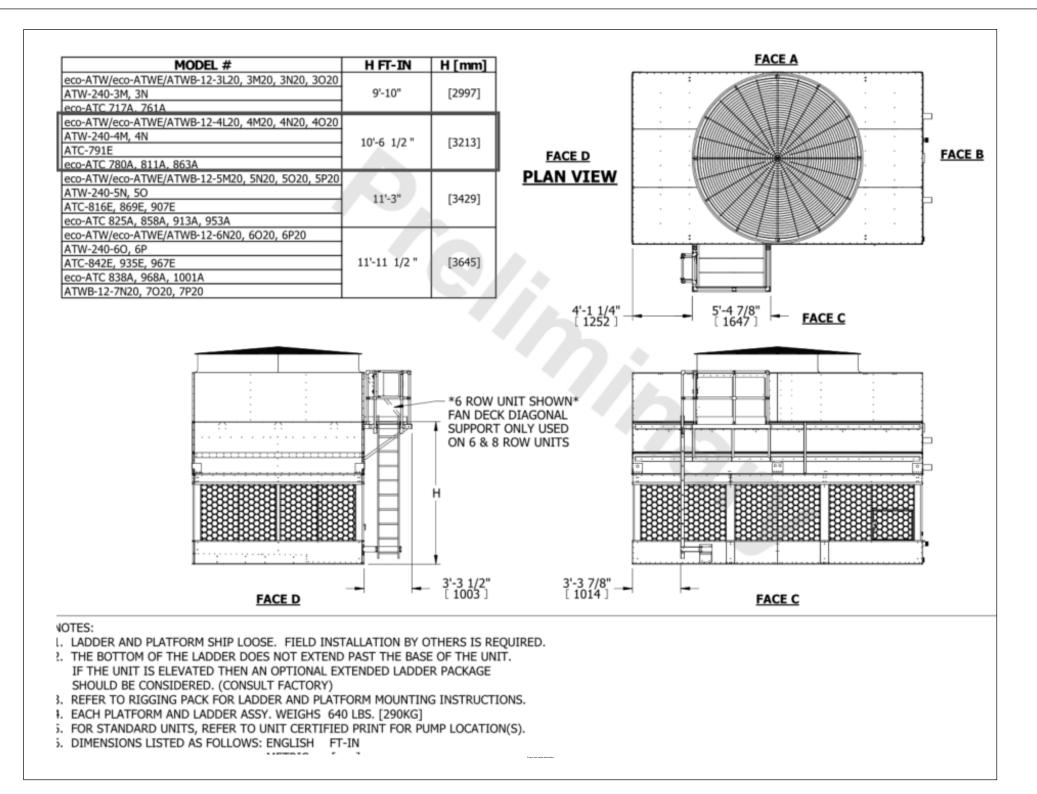
- 1 CONCRETE WORK SHALL BE IN CONFORMANCE WITH ACI 301 AND ACI 318.
- 2 REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. WELDED WIRE FABRICK SHALL CONFORM TO ASTM A185. FABRICATION AND PLACEMENT SHALL BE IN ACCORDANCE
- WITH DRAWINGS ACI 315 AND CRSI STANDARDS. PROVIDE NECESSARY CHAIRS, BOLSTERS AND TIES TO SECURE REINFORCEMENT IN POSITION.
- 3 PROVIDE (3) STANDARD CYLINDERS TAKEN EACH DAY AND/OR EVER Y 50 CUBIC YARS OF CONCRETE PLACEMENT FOR TESTING.
- 4 CONCRETE MIX SHALL BE MINIMUM OF 4000 PSI, WITH SLUMP OF 3" +/- 1", AIR ENTRAINMENT 5% TO 1%. PORTAND CEMENT SHALL BE TYPE 1, AGGREGATE SHALL CONFORM TO ASTM C33. NO FLYASH, CHLORIDES OR OTHER ADDITIVES SHALL BE USED UNLESS APPROVED BY THE ENGINEER/ARCHITECT
- 5 CONTRACTOR SHALL SUBMIT MIX DESIGNS, SHOP DRAWINGS AND TEST RECORDS.

### STEEL:

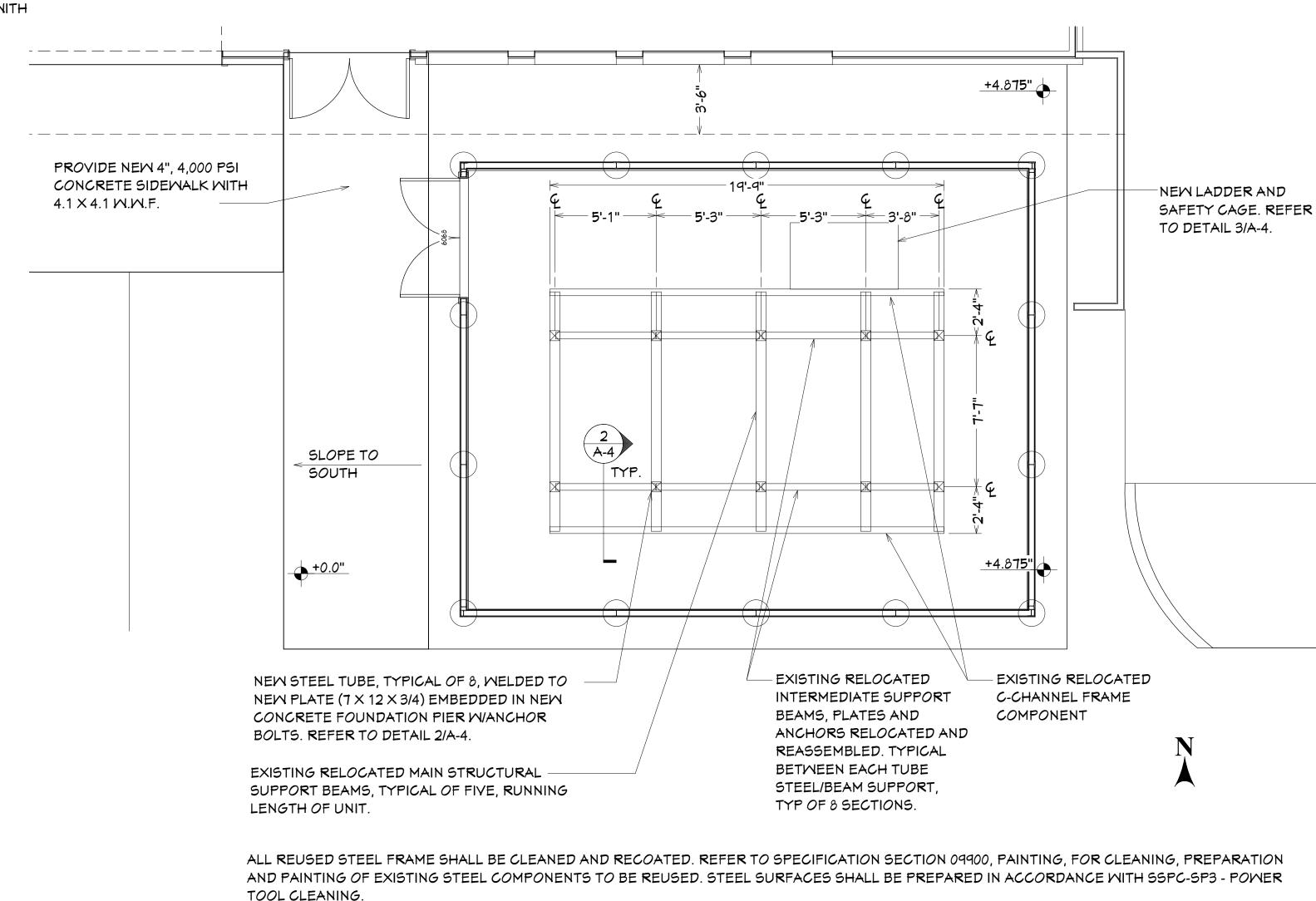
- 1 ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE MANUAL OF STEEL CONSTRUCTION CODE OF STANDARD PRACTICE BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
- 2 ALL STRUCTURAL STEEL MATERIAL SHALL BE AS FOLLOWS:
- BEAMS ASTM A992 (Fy= 50 KSI), CHANNELS, ANGLES, PLATES, MISC. SHAPES ASTM A36, TUBING ASTM A1085 (Fy= 50 KSI), ANCHOR BOLTS ASTM F1554, STANDARD BOLTS ASTM A307, HIGH STRENGTH BOLTS - ASTM A325 TYPE SC.
- 3 BOLTS SHALL BE TIGHTENED BY THE "TURN OF THE NUT" METHOD OF MATACHING NUTS AND WASHERS (ASTM A563)
- 4 WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE BY THE AMERICAN WELDING SOCIETY (AWS D1.1). ELECTRODES SHALL BE E708 OR EQUAL. WEL
- SIZEDS AND LENGTHS SHALL BE THE MINIMUM REQUIRED BY AWS UNLESS OTHERWISE NOTED. WELDER CERFIFICATION SHALL BE PROVIDED UPON REQUEST.
- 5 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. CONNECTIONS SHALL BE DETAILED IN ACCORDANCE WITH ROSC RECOMMENDATIONS, BEAM CONNECTIONS SHALL BE DESIGNED FOR HALF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY U.N.O.
- 6 STEEL SHALL BE PAINTED PER SPECIFICATION SECTION 099600.
- 7 STEEL SHALL BE ALIGNED PLUMB, LEVEL AND TRUE TO LINE. FIELD CUTTING, TORCHING AND BENDING SHALL NOT BE ALLOWED WITHOUT ENGINEER'S APPROVAL.
- 8 NON-METALLIC, NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF to >/5000 PSI AND BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH MANUFACTUER'S RECOMMENDATIONS.



2/A-4 TYPICAL CONCRETE PIER AT EVAPORATIVE COOLING TOWER FRAME SCALE: 1/4 = 1'-0"



# EVAPCO LADDER AND CAGE



INSPECTION OF EXISTING CONDITION AND SCOPE REQUIRED TO REMOVE, CLEAN, PAINT AND RELOCATE EXISTING STEEL FRAME AND SUPPORTS IS REQUIRED PRIOR TO BID. NO INCREASES IN COST SHALL BE REVIEWED FOR EXISTING CONDITIONS READILY ACCESSIBLE DURING BIDDING.

1/A-4 EYAPORATIVE COOLING TOWER STRUCTURAL FRAME AND FOUNDATION SCALE: 1/4 = 1'-0"

DATE: 12/17/23

SCALE:

SHEET:

**A-4** 

Oleson Design Studio, LLC 116 S. IL Route 83, Unit C Grayslake, IL 60030

November 22, 2023

Attn: Ms. Christine Oleson Architect, Owner

Re: Centennial Ice Rink Cooling Tower Noise

#### Dear Christine:

On November 16<sup>th</sup> we visited the Centennial Ice Rink, managed by the Wilmette Park District, at 2300 Old Glenview Road in Wilmette to observe and take noise pressure measurements of the existing rooftop cooling tower. Noise level measurements were taken at the elevation of the cooling tower to the south, east and northwest.

The purpose of our study was to quantify the noise levels associated with the cooling tower and compare the results to applicable noise ordinances, given that this cooling tower is to be relocated to the ground level directly south of the existing building. The new location of the cooling tower will be approximately 215 feet from residential property lines to west and south. The results of these measurements and our analysis are presented herein.

#### **Noise Ordinances**

#### Willmette Noise Ordinance

For residential properties, the Wilmette Zoning Ordinance (section 13.7.A) sets a limit at the property line of 50 dBA between 7AM and 7PM, and 45 dBA between 7PM and 7AM. The Wilmette Zoning Ordinance does not define individual octave band limits nor does it include any reference to a "pure tone" condition.

#### **Illinois Pollution Control Board Limits**

The Wilmette Zoning Ordinance also references the limits set forth by the Illinois Pollution Control Board (IPCB) Noise Regulations (35 III. Adm. Code 901.102). These regulations include individual octave-band property line noise limits (re: Figure 1) as well as additional limitations when a pure tone condition exists.

#### Measurements

Measurements were taken between 10:20 AM and 10:50 AM, while the cooling tower was operating at full load. Based upon our measurements, and correcting for measured background noise levels, we have calculated the broadband and octave-band noise levels resulting from the cooling tower at the nearest residential property lines should there be a clear line of sight to the cooling tower.

Significant traffic noise from Old Glenview Road was observed at measurement locations south and east of the cooling tower. Measurements taken northwest of the cooling tower were taken on the rooftop at a location shielded from this traffic noise by the roof structure. We have, taking this background noise into account, calculated the noise contribution of the cooling tower at the nearest property line location to be **44 dBA**, as shown in the attached Figure 1. It can be noted that no pure tone condition exists.

#### **Discussion and Conclusion**

Although the calculated level of 44 dBA at the property line satisfies the broadband noise limits set forth by the IPCB as well as the Wilmette Zoning Ordinance, noise levels at individual octave-band frequencies will exceed the nighttime limits set forth by the IPCB, as shown in the attached Figure 1.

In order to meet the nighttime octave-band noise limits, an acoustical louver or noise control barrier wall will need to be constructed, to the minimum extent shown in Image 1. The louvers, or barrier walls, must be at least 18 feet tall in order to break the line of sight to the top of the cooling tower by at least 1 foot.

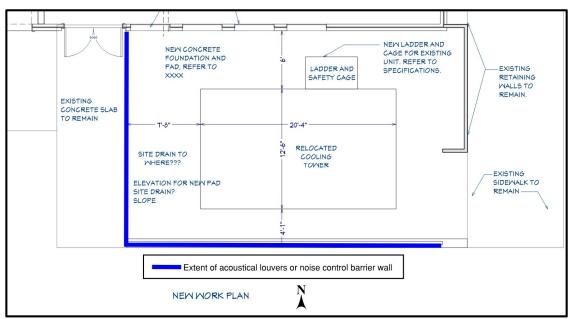


Image 1 - Extents of Noise Control Barrier

Please do not hesitate to contact us should you have any questions regarding our measurements or this report.

Sincerely,

Shiner Acoustics, LLC

Daniel M. Horan, INCE-USA

Partner

LEED AP BD+C

DMH:dh

attachment: Figure 1

2

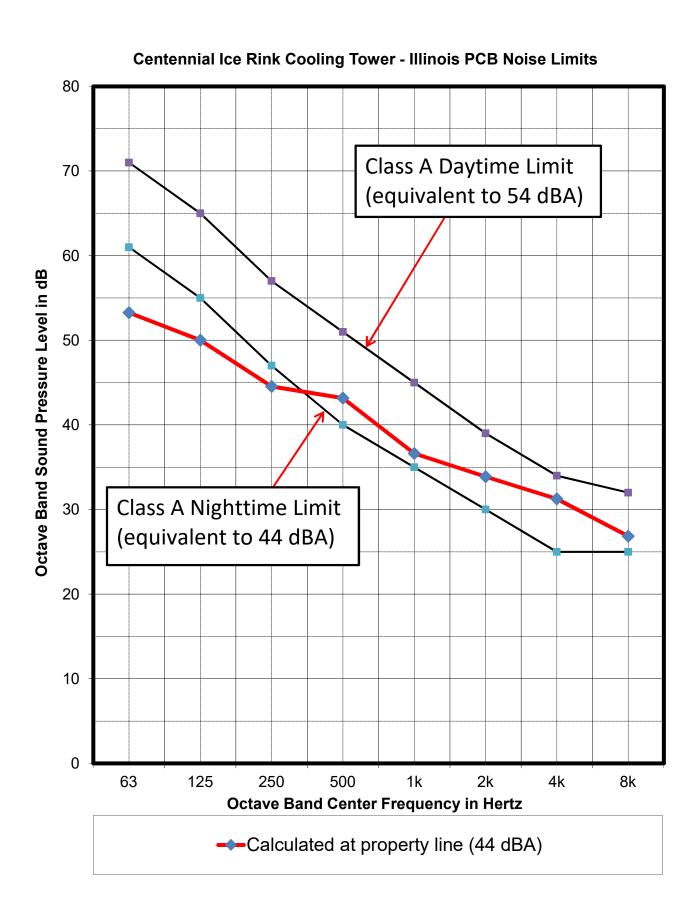


Figure 3





Centennial Ice Arena Wilmette Park District Evaporative Cooling Tower Relocation Project