

Request for Tender TP-1 Primary Equipment Supply

BACKGROUND

The Springfield Plant Replacement project at Nelson Center Ice Rink will take place in Springfield, IL and will contain a new plant and two new ice rink floors. This tender encompasses the supply and startup of the Primary Equipment and delivery to site.

This contractual form of a tender agreement is between the Owner and Supplier. The purchase order (PO) will be assigned to the selected installer at a later date.

The key objectives of this contract are to:

- Supply and startup of four (4) Integrated Thermal Packages (ITP)
- Supply one (1) Prepackaged Cold Pump Deck
- Supply one (1) Prepackaged Condenser Pump Deck
- Supply one (1) Prepackaged Warm Pump Deck
- Supply and startup of one (1) Adiabatic Fluid Cooler
- Provide all delivery and logistical services (FOB to site).

The scope of work for the Supplier sought by this tender comprises all required key objectives listed above and logistical work required. For the purposes of this tender and associated documents, the term Supplier and Contractor are interchangeable.

MILESTONE DATES

Tender Posting	20-December-2024
Deadline for Questions	31-December-2024
Tender Closing	07-January-2025 (no later than 2:00 pm CT)
Delivery Date to Site	24-June-2025

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1. Tender Submission Content

1.1. Submission Content

The Supplier's Submission shall consist of lump-sum pricing for all items listed within this document and must include contact information of the Supplier.

1.2. Acceptance or Non-Acceptance of Proposals

- 1.2.1. Bidders are advised that Springfield Park District reserves the right to accept any proposal or reject all. Proposals shall be irrevocable and remain open for acceptance by the Owner for a period of ninety (90) days from the proposal closing date. The lowest (bid) or any proposal shall not necessarily be accepted.
- 1.2.2. The Owner may refuse to consider a proposal should any of the following conditions exist:
 - .1 A proposal is not submitted as required (e.g. proposal submitted after the due time and date, required information not provided, etc.).
 - .2 All addenda are not acknowledged in the Submission.
 - .3 Any other defect which, in the opinion of the Owner brings the validity of the proposal into question.
- 1.2.3. In order to obtain the most advantageous offer for the Owner, it reserves the right in its sole discretion:
 - .1 To waive irregularities and/or minor non-compliance by any Supplier with the requirements of this Tender,
 - .2 To request clarification and/or further information from one or more Supplier after closing without obligation to offer the same opportunity to all Suppliers,
 - .3 To enter into negotiations with one or more Suppliers without obligation to negotiate with, or, offer the same opportunity to, all Suppliers,
 - .4 If negotiations with a Successful Supplier do not result in a Contract Agreement, to enter into negotiations with any other Supplier, or to discontinue negotiations and terminate this Tender, at its option.
- 1.2.4. Suppliers are advised however to submit a complete offer as their proposal. Any waiver, clarification or negotiation will not be considered as an opportunity for Suppliers to correct errors in their proposal.
- 1.2.5. It is understood and accepted by the Supplier that all decisions on whether a Proposal satisfies the Mandatory Requirements and meets, or to what degree it meets are the judgment of The Owner in its sole discretion.
- 1.2.6. The Owner is not obligated to award any contract as a result of the tender and reserves the right in its sole discretion to cancel this tender process at any time before or after closing without providing reasons for such cancellation.
- 1.2.7. The Owner reserves the right to negotiate provisions in addition to those stipulated in this tender or proposed by the Successful Supplier.

2. Instructions to Supplier and Contract Compliance

2.1. Closing Date

The proposal must be received in the manner, date and time specified in this tender. Late proposals will not be accepted. Bids are to be delivered to the Board Room in the Springfield Park District office, located in Bunn Park.

Bids should be directed to Mr. Jason Graham, Director of Parks & Planning
 Springfield Park District
 2500 South 11th Street
 Springfield, IL 62703

Deadline: **no later than 2:00 PM** (Central Time) on January 7th, 2025.

2.2. Disclaimer

While every attempt has been made to provide interested parties with detailed and comprehensive information on which to prepare their submission, the Owner, in conjunction with I.B Storey Inc., accepts no responsibility for any omissions or errors on content within the request. It is the responsibility of each interested party to satisfy themselves that they have sufficient and adequate information upon which to prepare and submit a proposal.

The interested party shall be deemed to have fully acquainted themselves with all conditions likely to affect the services required to be performed and to be performed and environs to satisfy themselves of the nature and extent of the services required for the Work at the project site. No claim by any interested party for additional payment or adjustment for terms or conditions will be accepted or allowed by The Owner on the grounds of any misunderstanding or misrepresentation due to lack of knowledge of any of these conditions or any regulations or requirements. The Owner reserves the sole and exclusive right to accept or reject all or any proposals which may be received as result of this call. No contract is hereby intended or offered by the request for proposals.

Springfield Park District
2500 S. 11th St.
Springfield, IL
62703

STIPULATED PRICE FORM

Project: Springfield – Plant Replacement

Name of Supplier: _____

Address: _____

Telephone: _____ Fax: _____

STIPULATED PRICE

I / We, the undersigned, having examined this Request for Tender TP-1 Primary Equipment Supply, all referenced specifications, and having received, carefully examined and incorporated from items in Section 2 and offer to enter into a Contract with the Owner to perform the all work required for the stipulated *Contract Price* of:

Integrated Thermal Package (per one unit). \$ _____

Compressor 5-year Warranty (per one unit). \$ _____

Total – For one (1) unit. \$ _____

Total – For four (4) units. \$ _____

Stipulated Prices excluding taxes (GST or HST).

Prepackaged Cold Pump Deck (per one unit). \$ _____

Total – For one (1) unit. \$ _____

Stipulated Prices excluding taxes (GST or HST).

Prepackaged Condenser Pump Deck (per one unit). \$ _____

Total – For one (1) unit. \$ _____

Stipulated Prices excluding taxes (GST or HST).

Prepackaged Warm Pump Deck (per one unit). \$ _____

Total – For one (1) unit. \$ _____

Stipulated Prices excluding taxes (GST or HST).

Adiabatic Fluid Cooler (per one unit). \$ _____

Total – For one (1) unit. \$ _____

Stipulated Prices excluding taxes (GST or HST).

Stipulated Price Form

DECLARATIONS

I / We, the undersigned declare that:

- .1 *Works will be commenced immediately upon award of Contract and shall achieve Substantial Performance of Work by **the date outlined in the specifications.***
- .2 No person, firm or corporation other than the undersigned has any interest in this stipulated price agreement or in the proposed Contract for which this stipulated price agreement is made.
- .3 This Price Proposal is open to acceptance and irrevocable for a period of ninety (90) days.
- .4 This agreement supersedes all prior negotiations, representations, or agreements, either written or oral, relating in any manner to the *Work*.
- .5 The *Contract Documents* consist of this Price Form; all sections of this document; and all Supplementary Conditions and Amendments issued. For the purposes of the Definitions and General Conditions, the *Owner* is Springfield Park District and the Supplier is

_____ (Supplier name).

SIGNATURES:

Supplier (Proponent)

WITNESS

Company Name

Signature

Printed Name and Title of Person Signing

Signature

Printed Name and Title of Person Signing

Dated this _____ day of _____, 2020

Springfield Park District
2500 S. 11th St.
Springfield, IL
62703

SPECIFICATION COMPLIANCE FORM

DECLARATIONS

I / We, the undersigned hereby certify that the bid put forward is in full compliance with the tender specifications and addendums detailed below.

Section ¹	Compliance Acknowledged
Appendix A Contract Specifications	
Appendix B Project Schedule	

Note: Any proposed equivalents for equipment must be approved prior to submitting bids.

SIGNATURES:

Supplier (Proponent)

WITNESS

Company Name

Signature

Printed Name and Title of Person Signing

Dated this _____ day of _____, 2020

Signature

Printed Name and Title of Person Signing

¹ Add addendums as applicable.

Appendix A

Contract Specifications

PART 1 – GENERAL

1.1 Scope of Work

- .1 The objectives of this project encompass the following:
 - .1 Supply four (4) ice refrigeration packages, one (1) adiabatic fluid cooler, and three (3) prepackaged pump decks for the Nelson Center Ice Rink located at 1601 North 5th St., Springfield, IL 62703.
 - .2 Provide all transportation and logistical services (FOB to site).
 - .3 Co-ordinate delivery with the selected installer.
 - .4 Deliver all equipment to site by June 24th, 2025. Delivery date to be coordinated with the Owner and Consultant.
 - .5 Work is to be completed as per Appendix B: Project Schedule.
- .2 This Contract will be assigned to the selected installer to maintain lines of warranty.

1.2 Definitions

- .1 Primary Equipment Supply: This work consists of the supply of primary refrigeration plant equipment for the Nelson Center Ice Rink. The selected bidder will be responsible for the supply, delivery, FOB to site, and startup of all products listed in these specifications.
- .2 Supplier: The single Supplier to provide the products and work of this Bid Document. This Supplier shall be the procurer (supplier) and responsible for all transportation. This party shall be the signatory to the contract, and shall take on all responsibilities therein. The Supplier shall supply all materials, labour, and equipment required to complete all work and provide all required equipment.
- .3 The Owner: For the specifications herein the Springfield Park District shall be referred to as The Owner.
- .4 The Consultant: For the specifications herein I.B. Storey US Inc. shall be referred to as the Consultant.

1.3 Quality Assurance

- .1 General
 - .1 The Supplier shall be regularly engaged in the supply or distribution of mechanical and refrigeration equipment in the United States.

1.4 References

- .1 The products listed herein shall fully comply with all codes and standards applicable to this type of work, including;
 - .1 State Occupational Safety and Health Administration (OSHA)
 - .2 The National Electrical Code
 - .3 National Fire Code
 - .4 ASME Boiler and Pressure Vessel Code (BPVC)
 - .5 Underwriters Laboratories (UL) listing and labels
 - .6 American National Standards Institute (ANSI)
 - .7 American Society for Testing and Materials (ASTM)
 - .8 American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Standards:
 - .1 ASHRAE Standard 15 - Safety Standard for Refrigeration System
 - .2 ASHRAE Standard 34 – Designation and Safety Classification of Refrigerants.
- .2 In the case of conflicts or discrepancies, the more stringent regulation shall apply.

1.5 Shop Drawings

- .1 Manufacturer's data sheets must be used for each product included as part of the scope of work. The submittal package must include:
 - .1 Instructions for installation preparation, methods, and recommendations.
 - .2 Safety requirements and details.
 - .3 Operating and design parameters such as temperatures, pressures, RPM, and physical size.
 - .4 Performance and equipment specifications for all equipment and major materials.
 - .5 Storage and handling requirements and recommendations.
- .2 All specifications for equivalents being offered must be received electronically by the Owner and/or the Consultant for review no later than the question deadline during the bidding process.
- .3 Shop drawings must also contain complete wiring and schematic diagrams, sequences of operation, control system bus layouts, and any other details as required.

1.6 Warranty

.1 Standard Material and Labor Warranty:

- .1 If within twelve (12) months from the date of acceptance of a product, upon written notice from the Owner, it is found to be defective in operation, workmanship, or materials, it shall be replaced, repaired, or adjusted at the option of the Supplier at the cost of the Supplier.
- .1 The magnetic bearing compressors on the packages must include a five (5) year warranty.

PART 2 – SCOPE OF WORK

2.1 Primary Equipment
Supply Specifications

- .1 Supply four (4) magnetic bearing oil-less compressor packaged rink systems (ITP-1, ITP-2, ITP-3, ITP-4). The following performance requirements are for each package.
 - .1 Refrigerant: R513a
 - .2 Evaporator Side:
 - .1 Total Capacity: 50 TR (per packaged system, 200 TR total)
 - .2 Fluid: 40% Ethylene Glycol
 - .3 Flow rate: 467 USGPM
 - .4 EFT: 13°F
 - .5 LFT: 10°F
 - .6 Pressure Drop: 33 ft.
 - .3 Condenser Side:
 - .1 Fluid: 40% Ethylene Glycol
 - .2 Flow rate: 220 USGPM
 - .3 EFT: 85°F
 - .4 LFT: 93°F
 - .5 Pressure Drop: 25 ft.
 - .4 Power: 52.8 kW
 - .5 Electrical Requirements: 460/3/60
 - .6 Must include Danfoss frictionless, magnetic bearing, oil-less compressors.
 - .7 Compressor must be of high lift design.
 - .8 Manufacturer must have fifteen (15) years of experience in integrating Danfoss Turbocor compressor internal protection software for stall and surge situations at various operating conditions.
 - .9 Include a five (5) year warranty on the magnetic bearing compressors only (priced separately on the Bid Forms).
 - .10 Use only hybrid condenser/evaporator vessels set with hybrid film design.
 - .11 Pressure relief valves are to be included on both evaporator and condenser as provided by the manufacturer.
 - .12 Package must include a PLC controller with color touchscreen.
 - .13 IIOT (Industrial Internet of Things) 4.0 control system capable of controlling multiple independent units.
 - .14 C-UL 508a standard control panel.
 - .15 Controller must be BACnet compatible.
 - .16 Condenser water regulating valve must be included on the package.

- .17 Wholly independent, standalone packaged units
- .18 Package manufacturer must be:
 - .1 Nationally recognized supplier of OEM parts
 - .2 Experienced in building units with Danfoss magnetic bearing compressors
- .19 Package must be able to unload with constant entering water temperature.
- .20 Packaged System Dimensions:
 - .1 Length: 144.1" (inches)
 - .2 Width: 33.3" (inches)
 - .3 Height: 74.15" (inches)
- .21 Any deviation from the Standard of Acceptance must maintain the walking path in the room and allow for serviceability of the unit. This must be demonstrated in a Clearances and Interfaces Drawing.
- .22 Supplier must provide, and comply with the manufacturer's instructions for, rigging, loading, and transporting.
- .23 Testing data demonstrating performance must be available upon request.
- .24 The unit must be protected from physical damage at all times.
- .25 The Supplier must provide on-site startup for the packages performed by manufacturer technicians.
 - .1 Startup must include one day of on-site training by manufacturer technicians.
 - .2 Startup date is to be coordinated with the selected installer of the packages. The expected startup date is September 1st, 2025.
- .26 Standard of Acceptance: Thermal Care TCFW375 Limited, or approved equivalent
- .2 Supply one (1) Adiabatic Fluid Cooler complete with pre-cooling pads (AFC-1)
 - .1 Capacity: 3,076 MBH
 - .2 WBT: 75.9°F
 - .3 Fluid: 40% Ethylene Glycol
 - .4 Flow Rate: 680 USGPM
 - .5 EGT: 105°F
 - .6 LGT: 95°F
 - .7 Maximum Coil Pressure Drop: 6.37 psi
 - .8 Maximum Sound Pressure: 78 dB(A) at 3' (feet).
 - .9 Ten (10) Fan Motors: 43.8 BHP (total), premium efficiency.
 - .1 Motor must be electrically commutated.

- .10 Electrical Power: 480/3/60
- .11 Must include an on-board controller.
 - .1 Controller must be BACnet open standard communication protocol compatible. Controller must be capable of variable speed control of the fan motors.
 - .2 Controller as a minimum must be able to maintain the leaving glycol setpoint.
- .12 Unit to include remote control panel installation option including 50 ft. of whip wiring between the control panel and fluid cooler.
- .13 The Supplier must provide on-site startup for the adiabatic fluid cooler performed by manufacturer technicians.
 - .1 Startup date is to be coordinated with the selected installer of the packages. The expected startup date is September 1st, 2025.
- .14 Standard of Acceptance: Thermal Care GFD 090.2A2x5/6AA-E355L/02P.M, or approved equivalent.
- .3 Supply one (1) Prepackaged Cold Pump Deck (CP-1, CP-2, CP-3):
 - .1 Pump package shall have a welded structural steel frame and a solid plate steel pump deck
 - .2 Package shall include the following:
 - .1 Three (3) Armstrong 4030 6x5x11.5 pumps
 - .1 Motor: 30 HP, premium efficiency
 - .2 Power: 460/3/60
 - .3 Flow Rate: 934 GPM
 - .4 Working Fluid: 40% Ethylene Glycol
 - .5 Pumping Head: 86 ft. H₂O
 - .2 Three (3) 8" grooved trim for process pumps
 - .3 Three (3) Armstrong SG-86 suction guides
 - .4 Three (3) Armstrong FTV-8FS Flo-Trex valves
 - .5 10" grooved 3-pump process pump suction manifold
 - .6 10" grooved 3-pump process pump discharge manifold
 - .7 10" grooved second discharge manifold
 - .8 Three (3) 30 HP ACH580-01-046A-4 VFDs mounted on pump deck and wired to pumps
 - .9 Three (3) line reactors wired to input of VFDs (line side)
 - .10 Eight (8) isolation valves
 - .11 Hard pipe conduit for wiring to pumps
 - .3 Standard of Acceptance: Thermal Care Cold Floor PD-30-30-30-S-SR-DL-460, or approved equivalent.

- .4 Supply one (1) Prepackaged Condenser Pump Deck (HP-1, HP-2):
 - .1 Pump package shall have a welded structural steel frame and a solid plate steel pump deck
 - .2 Package shall include the following:
 - .1 Two (2) Armstrong 4030 5x4x10 pumps
 - .1 Motor: 25 HP, premium efficiency
 - .2 Power: 460/3/60
 - .3 Flow Rate: 660 GPM
 - .4 Working Fluid: 40% Ethylene Glycol
 - .5 Pumping Head: 91.2 ft. H₂O
 - .2 Two (2) 6" grooved trim for process pumps
 - .3 Two (2) Armstrong SG-65 suction guides
 - .4 Two (2) Armstrong FTV-6FS Flo-Trex valves
 - .5 6" grooved 2-pump process pump suction manifold
 - .6 6" grooved 2-pump process pump discharge manifold
 - .7 Two (2) 25 HP ACH580-01-034A-4 VFDs mounted on pump deck and wired to pumps
 - .8 Two (2) line reactors wired to input of VFDs (line side)
 - .9 Four (4) isolation valves
 - .10 Hard pipe conduit for wiring to pumps
 - .3 Standard of Acceptance: Thermal Care Condenser PD-25-25-C-SR-DL-460, or approved equivalent.
- .5 Supply one (1) Prepackaged Warm Pump Deck (WFP-1, WFP-2, WFP-3):
 - .1 Pump package shall have a welded structural steel frame and a solid plate steel pump deck
 - .2 Package shall include the following:
 - .1 Three (3) Armstrong 4030 1.5x1x6 pumps
 - .1 Motor: 1 HP, premium efficiency
 - .2 Power: 460/3/60
 - .3 Flow Rate: 31 GPM
 - .4 Working Fluid: 40% Ethylene Glycol
 - .5 Pumping Head: 36.1 ft. H₂O
 - .2 Three (3) 2" grooved trim for process pumps
 - .3 Three (3) Armstrong SG-1515TF suction guides
 - .4 Three (3) Armstrong FTV-2GS Flo-Trex valves
 - .5 3" grooved 3-pump process pump suction manifold
 - .6 2" grooved 3-pump process pump discharge manifold
 - .7 2" grooved second discharge manifold
 - .8 Eight (8) isolation valves

- .9 Safety switches for each pump, mounted on the skid and wired to each pump.
- .3 Standard of Acceptance: Thermal Care Warm Floor PD-1-1-1-S-SR-DR-460, or approved equivalent.
- .6 Supplier must deliver all equipment to site by June 24th, 2025. Delivery date to be coordinated with the Owner and Consultant.

Appendix B

Project Schedule

ID	TP	Task Name	Start	Finish	Duration	2025											
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1		Step 5: Construct	1/20/2025	9/18/2025	34w 4d	[Gantt bar from Jan 20 to Sep 18]											
2	1	Shop Drawings & Pre-Order Equipment	1/20/2025	2/14/2025	4w	[Gantt bar from Jan 20 to Feb 14]											
3	1	Equipment Lead Time	2/17/2025	4/25/2025	10w	[Gantt bar from Feb 17 to Apr 25]											
4	1	Equipment Delivered to Site	6/24/2025	6/24/2025	0w	[Gantt bar from Jun 24 to Jun 24]											

Schedule As Tendered

