J. T. KATRAKIS & ASSOCIATES, INC.

Energy & Environmental Engineering, Consulting and Management

418 North Avenue, Barrington, IL 60010

Ph: 847-382-1877 Fx: 847-382-8194 www.jtkatrakisassociates.com

ADDENDUM #1

OF

INVITATION TO BID #06092014

DESIGN-BUILD SERVICES FOR SOLAR PHOTOVOTAIC (PV) SYSTEM

McHENRY COMMUNITY COLLEGE (MCC) SHAH CENTER, McHENRY, IL

June 4, 2014

This Addendum is in response to the inquiries from potential bidders. This Addendum constitutes changes to the specifications as sent out in the original ITB and other pertinent information shared with all vendors. All changes and information listed on this Addendum should be considered as the official modifications to the specifications and should be included in your proposal with these in mind.

Please acknowledge your receipt of this addendum by attaching a signed copy of the addendum with your proposal response.

Received and acknowledged by: _____

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1. CLARIFICATIONS TO BID DOCUMENTS

INSTRUCTIONS TO BIDDERS

Qualifications

1. Provide proof that at least one project team member is a NABCEP Certified PV Installation Professional.
2. Provide proof that company is a state-of-Illinois certified installer of distributed generation systems per Title 83 Public Utilities; Part 468.
3. References for the relevant four solar PV projects will be checked-provide complete contact information.

Proposed Approach

4. Shading study is not mandatory as part of bid; however it is a required submittal from the selected Contractor. Bid attachments must include projected renewable energy available to building and/or grid of the proposed system used as basis of cost-proposal with all assumptions and calculations (p
5. Along with product cut sheets and samples, include sample of PV wire and standard wire.

PROJECT SCHEDULE

6. August 15 is firm construction completion date
7. All invoices must be submitted by September 8

PROJECT CONTRACT

8. See sample contract on MCC website.

PERMITTING, INTERCONNECTION & NET METERING

Permits are expected to be approved prior to award of Construction Contract and associated fees will be paid by the Owner. The selected Construction Contractor will be responsible for abiding by the Permit terms and conditions and for responding to requirements of the authorities having jurisdiction.

To expedite the schedule of the interconnection and net metering, the Owner's Engineer is submitting the initial applications to the utilities. The selected Contractor will be responsible for taking over the management and completion of the interconnection and net metering arrangements.

BID SUMMARY

For your bids use the revised 3-page Bid Submission Form starting on page 4.

QUESTIONS

Structural

1. **Can the modules & arrays follow the contour of the ground or must they all be at equal elevation?** All the fixed tilt modules and array rows will be at equal elevation without having to change the grading. The fix tilt rows at equal elevation include row #1. Only the east-most 4-module section of row #1 will be on a separate adjustable pitch rack. It's mid-point elevation shall equal the mid-point elevation of the rest (fixed-tilt portion) of the array. **If equal elevation is required, what is recommended method: varying the exposed height of the helical pier or varying the height of the racking?** Vary the exposed shaft height of the helical pier. Survey and mark to cut the exposed shafts at a uniform elevation to avoid the need to design the racking to follow the site topography. Consult with the racking manufacturer to determine allowable tolerance in helical pier exposed shaft height; coordinate with racking contractor to make any final adjustments to achieve required tolerance.

2. **What parameters were used to design the racking system?** All required load parameters are indicated on the drawings. The helical pier design update described below is based on the preliminary soil boring test report. The final report will be provided to the selected Contractor.

3. **What is the minimum embedded depth for the helical piles?** For bidding purposes assume:
   a. 2 7/8" helical pipe/shaft diameter with 8" and 10" diameter helix/flights;
   b. 14'-0" below-grade depth of the helical piers. Provide Unit Pricing for variations from this assumption—see attached updated Bid Summary Sheet. Selected Contractor will provide submittal showing design depth and size of the helical piers with engineering calculations to Owner's Engineer for review and seal.
   c. leave enough above-grade exposed shaft to compensate for variations in grade in order to maintain all the array modules at same elevation
   d. minimum galvanized depth of helical pier is 42", galvanize at least the entire final (highest) section of helical pier. Any exposed shaft sections above grade are to be galvanized as well.

4. **The maximum span for the Iron Ridge racking with 3-inch support pipes is 13-feet. Is it acceptable to increase the span to the currently-engineered span of 16'-6''? Can this span be achieved with 2-inch support pipes?** For pricing and bids assume a span of 13'-0" feet with the appropriate type of 3-inch support piping. This will add four (4) piers per row, or an additional 16 piers for a total of

66+16=82 piers. Selected Contractor will provide final design, after coordinating with rack manufacturer and helical pier contractor, for submittal with engineering calculations to the Owner's Engineer for review and seal.

5. **Iron Ridge does not make flange adapters to connect to the helical piles. A custom baseplate can be fabricated to serve this purpose. What's the minimum bolt size and material (grade of steel and thickness of plate) acceptable for this purpose? Do the bolts need to be stainless steel or is galvanized acceptable?** For pricing and bid purposes assume:
   a. Racking base plates by Iron Ridge;
   b. The helical pier cap plate will be manufactured in keeping with the bolting pattern and size of the Iron Ridge base plate products. For bidding purposes the helical pier cap plate will be of 3/8" thickness, 8" dia., all steel with minimum 44 ksi yield strength; and welded to the helical pier manufacturer's cap/sleeve. The entire assembly including all welds will be hot dipped galvanized and to be provided with four (4) ¾" dia. bolt holes to accept four (4) 3/4" dia. galvanized bolts.

      The selected Contractor will coordinate all items with the rack manufacturer to ensure integrity of their 20 year warranty and with the pier contractor to prepare the design submittal with engineering calculations. Provide submittal to Owner's Engineer for review and seal.

Electrical

c. **Please verify the quantity and STC rating of the SolarWorld modules. The electrical drawings show (336) 275W modules, but the specifications on pages 20 and 26 of the RFP notes minimum STC ratings of 270W.** The base scope calls for 336 275W modules.

d. **The temperature coefficient is listed as -0.3%/°F. Is this supposed to be in Celsius and is this percentage the maximum value?** The temperature coefficient for power is -0.3%/°F or -0.5%/°C.

e. **Are polycrystalline silicon modules acceptable?** No, must be mono-crystalline. **Do the modules need to be 60-cell?** Yes

f. **Are thermal images and I-V curve traces required as part of the commissioning documents?** Yes

g. **Is PVC conduit acceptable underground where not subject to damage?** Yes

h. **Is a 3"high housekeeping pad required for the new transformer in the electrical room?** Yes

Other

i. **Does the security fence require vertical slates to limit visibility to the inside of the secured area?** Provide an Add Alternate #9 price for adding vertical slats provided by the manufacturer of the fencing. Use attached updated Bid Summary form.

McHenry County College Shah Center
Solar Photovoltaic System
BID SUBMISSION FORM (1 of 3)

Bid Submitted By:

Company Name: Date:

Address:

Signature: Title:

Print Name: Phone:

E-mail: Fax:

Items	Materials & Equipment	Labor & Overhead	Total
1. Solar PV Modules			
2. Module Racks			
3. Site Preparation & Foundations			
4. Security (Fencing)			
5. Landscaping			
6. Balance of System			
6.1 DC Power Distribution including Combiners			
6.2 Inverters			
6.3 Transformer			
6.4 AC Power Distribution			
6.5 Grounding, Lightning Protection			
7 Interconnection & Metering			
8 Commissioning & Training			
9 Education Components			
10 Design/Engineering of PV System			
12. Fees (Net Metering, Interconnect, etc.)			
13. Extended Product Warranties			
STIPULATED TOTAL BASE BID			
Performance Bond ($)			
TOTAL OF BASE BID + Performance Bond			

BID SUBMISSION FORM-Continued (2 of 3)

Items	Materials & Equipment	Labor & Overhead	Total
ALTERNATES (Indicate whether each Alternate is additive or subtractive)			
ALTERNATE#1 Optimize & Monitor Modules in Row #1			
ALTERNATE#2 Optimize & Monitor Modules in Rows #2 to 4 (In addition to AA#1)			
ALTERNATE#3 Various PV Modules			
ALTERNATE#4 Building Energy Meter			
ALTERNATE#5 Five Year Contractor Warranty			
ALTERNATE#6 Site Evaluation, Commissioning Tools & Training			
ALTERNATE#7 Simulation & Design Software			
ALTERNATE#8 Web-cam			
ALTERNATE #9 Slats for Security Fence			
TOTAL OF ALTERNATES			
GRAND TOTAL (Base Bid +Alternates)			

ANNUAL SERVICE CONTRACT ($/yr)			

UNIT PRICING	Add-Alternate	Deduct-Alternate	
Move the PV Array Northward—20 feet maximum ($/linear foot)			
Increase/Decrease average depth of helical screw piers. Bid prices will be based on average depth of 14'-0" feet. ($/linear foot)			
Labor Rates (Provide Attachment for Various Trades) Standard Overtime			
Overhead & Profit Rate (% of Labor)			

BID SUBMISSION FORM-Continued (3 of 3)

Checklist of Required Bid Attachments (The following items are included in the Bid Response):

1. ____Qualifications
2. ____References for Other Solar PV Projects
3. ____Projected Energy Use (kWh/yr)
4. ____Sketches including Electrical Single-line Diagram (Include proposed DC Voltage) with accompanying narrative.
5. ____Cut-sheets
6. ____Bid Submission Form (3 pages)plus any attachments

Expected Date to Start Mobilization: _____

Expected Date of Project Completion: _____

Comments on Ability to Meet Project Schedule: _____

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