NOTICE TO BIDDERS
Amendment #3 Issued on June 29, 2017
Re: Invitation to Bid # 17-19-KO

This Amendment should consist of a total of 16 pages. If you have not received this Amendment in its entirety, please contact the County of Berks Purchasing Department at (610) 478-6168.

The County hereby amends the above noted Invitation to Bid (ITB) as indicated herein. All other details of the ITB remain unchanged. Language that is underlined denotes that which has been added. Language that has been stricken denotes that which is hereby removed.

Where conflict exists between these responses and information in the original ITB package, the responses shall prevail.

1Q. Which Prime is responsible for Temporary Water?
   1A. Each Prime requiring water for execution of their Contract will be required to supply their own Temporary Water during Construction.

2Q. What are the requirements and location of the well pump?
   2A. For Well specification refer to Section and Drawing CS-1 indicate location.

3Q. Where are the Septic Drawings located, and what are the distances between the tanks?
   3A. The Sanitary/Septic Drawings are included in the Specification Section of the Documents following the Well Drilling Section.

   Please use the following for distances:
   Barn to 2000 gallon septic tank: 75 ft.
   2000 gallon tank to 1250 gallon tank: 180 ft.
   Office to 1250 gallon tank: 60 ft.
   Delivery line from pump tank to d-box: 320 ft.

4Q. Are Soil Boring reports available?
   4A. There are no soil boring reports available. The Unit Prices required will be used for Rock, if discovered. If other unforeseen conditions are discovered, it will need to be handled as a Change Order.

5Q. What shall we fill the trenches with and what should the finish be for trenches across the paved areas. Can we fill with the excavated blacktop?
   5A. The trenches are to be filled with the compacted excavated materials.
The piping and conduits must be protected and filled as all local and state codes require for the specific type of conduit or piping being installed.

The Prime Contractor is responsible to patch top coat of blacktop to match the adjacent blacktop level and to match blacktop areas.

6Q. Should the Rock Excavation Unit Price be included in the Plumbing Contract?
6A. The General, Plumbing and Electrical Contractors are to include a Unit Price. Revised Bid Form attached.

7Q. Should the HVAC Demolition be included in the General Contract?
7A. All Demolition work that pertains to a Prime Contractor to perform their work is the responsibility of that Prime Contractor. Electrical Contractor responsible for Electrical demolition, Plumbing Contractor responsible for Plumbing demolition and HVAC Contractor responsible for HVAC demolition. The Owner will take care of the Sanyo units.

8Q. Can additional information be provided for the Sanyo units, including relocation?
8A. The existing (2) Sanyo wall units will remain at their existing locations and are not to be disconnected. Any future relocations will be by the Owner. The Electrical contractor to allow two spare circuit spaces on the specified electrical panel for a future unit.

9Q. Who is the Electrical provider?
9A. The Electrical provider is Met-Ed.

10Q. Who provides the ceiling fans and what is the specification for them?
10A. The Electrical Contractor is to provide the Fans as noted:
48” dia. Envirofan, .61 Amps, 120V, 60 hz
See attached cut sheet 4 pages

11Q. Is an HVAC Test & Balance required?
11A. There is no Test and Balance of HVAC equipment required for this project.

12Q. Drawing E-1, note 1 under the single line/service notes, it calls out for us to include local utility fees. We have spoken with First Energy, and they can’t give me any costs without a design request number. Did anyone generate a DR number? Without one we have no way of knowing what to put in our bid for this. If one hasn’t been generated for this, could you have us put an allowance in for this so we are all on the same page?
12A. The Electrical Engineer has directed the Electrical Contractor to include an “Allowance” of $7,500.00 in the Contract for local utility fees since a First Energy Design Request Service Form will need to be acquired by the Electrical Contractor.

13Q. In the Summary Section 01010 page 7 states connections to a gas generator. Please verify if this is correct?
13A. No emergency gas generator is required for this project.
14Q. A Site inspection indicates that the utility pole mounted transformer is actually 180 ft. away from the meter and not 100 feet as noted on Drawing E-1. Could you please clarify?

14A. The Electrical Contractor shall include the utility pole mounted transformer as 180 feet away from the meter. Delete note of 100 feet as stated on drawing E-1.

15Q. The General Conditions 3.9 calls for a full time Site Superintendent. Could you clarify which Prime Contractors this is referring to?

15A. The General Contractor is the only Contractor required to have a “full time” Site Superintendent on the site during the entire project.

16Q. What species is the reclaimed wood for the structural members as well as for the T&G flooring?

16A. The reclaimed wood structural members and the reclaimed T&G wood flooring should be provided as oak.

17Q. What is the height of the mirror called out in Section 10 Specialties as wall to wall?

17A. The Bathroom Mirror height is 7’-0” as indicated on drawing 4/A-11 and bottom of the mirror is at 38”.

18Q. Mop brackets are specified, but none are shown. Are there any?

18A. Six Mop brackets are to be located as indicated on the Drawing A-11 noted as “hooks” in the Janitor Room.

19Q. There is inconsistency in the Specifications on who submits and pays for the Permits. Can you clarify?

19A. The Owner will submit the required Drawing sets for the Building permit, and pay for the permit fee. The Plumbing, Electrical and HVAC Prime Contractors will submit for their own permits. The owner will pay for the Permit fees.

20Q. Several bonding companies raised questions/issues with particular language found in the Payment Bond form.

20A. Payment Bond has been revised and is attached to this amendment.

21Q. Is AC being provided in the “Addition” Area?

21A. Yes. HVAC Contractor to provide and include pricing for the following:

Provide three (3) 6000 BTUH ductless split systems (wall-mounted indoor unit and outdoor unit mounted at grade) with wired temperature controller for cooling the following spaces:

Office
Women
Men

Provide electrical service for each system including circuit breaker at panelboard, conduit & wiring and control wiring in accordance with manufacturer’s installation instructions.

Provide refrigerant piping between indoor and outdoor unit.
Provide condensate piping for each unit and pipe to grade.

Coordinate installation with Owner including location of the indoor and outdoor units and refrigerant pipe routing. (Assume outside units will be located on the East side)

Should you have any questions regarding this Amendment, please contact Kelly J. Okken, Deputy Director of Contracts & Procurement, via phone at (610) 478-6168 ext. 6274 or via email at kokken@countyofberks.com.
County of Berks
Berk's County Services Center
Controller’s Office, 12th Floor
633 Court Street
Reading, PA 19603

Re: County of Berks
The following Bid is submitted in response to your Advertisement to Bid.

This Bid is submitted by:

Company Name: ________________________________________________________________

Company Address: _______________________________________________________________

Main Telephone: ______________________________

Main Fax: ______________________________

Communications and questions concerning this bid are to be directed to:

Contact Name / Title: _____________________________________________________________

Contact Telephone: _____________________________________________________________

Fax: ______________________________________________________________

Contact Email: ________________________________________________________________

In the event our company is awarded a contract as a result of the ITB and this bid, the following individual will serve as project liaison/manager:

Name / Title: ________________________________________________________________

Office Address: ________________________________________________________________

Telephone: ________________________________________________________________

Fax: ________________________________________________________________

Email: ________________________________________________________________

This Bidder agrees to furnish bonds required by Instructions to Bidders and General Conditions. Bid Security in the amount required by Instructions to Bidders and General Conditions is enclosed. It is agreed that Bid Security shall be forfeited to the addressee if this Bidder does not, within ten (10) days after notification of Award of Contract, enter into a Contract and provide the required bonds and insurance.

Bidder's Handwritten Initials ________
This Bidder has carefully examined all CONTRACT DOCUMENTS and the BID DOCUMENTS and certifies that it fully understands the requirements thereof. This Bidder agrees that, after notification of Award of Contract, it will furnish and deliver the materials, tools, equipment, tests, transportation, secure permits and licenses, do and perform labor, superintendence and means of construction, pay fees and do incidental work, and execute, construct and finish the aforesaid in an expeditious, substantial and workmanlike manner; in accordance with the Bid Documents and the Contract Documents to the complete satisfaction and acceptance of the Owner for the price hereinafter stated.

Bidder understands that the Award of Contract will be preconditioned on submittal to the Owner of a Certificate of Insurance, Payment Bond and Performance Bond as outlined in the Instructions to Bidders and General Conditions.

Bidder understands the following supplement to the Bid Form must be submitted concurrent with this bid submission.

- Bid Security Form (Bid Bond)
- Non-Collusion Affidavit
- Sample Certificate of Insurance evidencing limits required herein
- Commonwealth of Pennsylvania Public Works Employment Verification Form for Bidder and Subcontractors.
- Agreement of Surety

Bidder understands the following supplement to the Bid Form must be submitted, if applicable, when directed to do so by the Owner, or Owner’s agent.

- Performance Bond
- Payment Bond
- Waiver of Liens
- Commonwealth of Pennsylvania Public Works Employment Verification Form for Bidder and Subcontractors.
- Subcontractors List
- Equipment Suppliers List
- Alternates/Substitution List

Certificate of Insurance evidencing limits and including the additional insured language required herein. The Contractor’s General Liability policy shall include the CG2503 Designated Construction Project’s General Aggregate Limit or the equivalent.

This Bid is submitted with the definite understanding that Bids are valid for acceptance by the County of Berks and may not be withdrawn for a period of at least sixty (60) days after the actual date of the opening thereof unless the Award of Contract is delayed due to required approvals of other governmental agencies, or sale of bonds, in which case, Bids shall be irrevocable for one hundred twenty (120) days in compliance with Act 1978-317, approved November 26, 1978.

It is understood that the Owner reserves the right to reject any or all Bids, or part thereof or items therein, and to waive technicalities required for the best interests of the Owner. Omission of any information may be sufficient cause for rejection of this Bid. It is further understood that competency and responsibility of Bidders will receive consideration before the Award of Contract.

The undersigned will not assign its Bid or any of its rights or interests thereunder without the written consent of the Owner.

Bidder's Handwritten Initials _______
The Base Bid and other required information are submitted in the spaces provided. Handwritten initials on each page of this Bid Form identify each as a part of this Bid.

**BASE BID**
The sum of ____________________________________________ Dollars ($___________)
for the County of Berks _______________ Project.

**COST BREAKDOWN**
Total shall equal Base Bid.

| Bonds       | $ __________________ |
| ____________ Contract | $ ____________ |

* Cost breakdowns are for administrative purposes only, and will not be used to determine the lowest possible bidder.

**ALTERNATES**
The following listed alternate prices shall be filled in and submitted with the Bid Form. It is agreed that all Work to be performed under accepted alternate prices shall conform to the applicable Contract Documents, and shall include all Work in connection with or consequent to the alternate price Work to produce a complete installation.

Alternate prices shall be all inclusive of the cost of materials, Work, profit, supervision, administration and any and all other costs in connection therewith for Work in place and accepted or omitted as the case may be, and shall hold for the same period as the Bid.

The undersigned hereby proposes the following prices for Alternates, the selection of which shall be at the Owner's option:

A. _____________________________________________________________________.
   1. _____________________________________________________________________.
      Add/(Deduct) $ _____________

B. _____________________________________________________________________.
   1. _____________________________________________________________________.
      Add/(Deduct) $ _____________

**UNIT PRICING**

**CONTRACT NO. 1 – GENERAL CONSTRUCTION**

<table>
<thead>
<tr>
<th>Unit Price No.1: Rock Excavation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. By Hand, Air Hammer $ _______/c.y.</td>
</tr>
<tr>
<td>B. By Ram Hammer $ _______/c.y.</td>
</tr>
<tr>
<td>C. By Blasting $ _______/c.y.</td>
</tr>
</tbody>
</table>

**CONTRACT NO. 2 - PLUMBING CONSTRUCTION**

<table>
<thead>
<tr>
<th>Unit Price No.1: Rock Excavation</th>
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</thead>
<tbody>
<tr>
<td>A. By Hand, Air Hammer $ _______/c.y.</td>
</tr>
<tr>
<td>B. By Ram Hammer $ _______/c.y.</td>
</tr>
<tr>
<td>C. By Blasting $ _______/c.y.</td>
</tr>
</tbody>
</table>

Bidder's Handwritten Initials _______
CONTRACT NO. 4 - ELECTRICAL CONSTRUCTION

Unit Price No.1: Rock Excavation
A. By Hand, Air Hammer $_____________/c.y.
B. By Ram Hammer $_____________/c.y.
C. By Blasting $_____________/c.y.

ADDENDA

The Bidder acknowledges receipt of Addenda listed below which have been issued during the bidding period and agrees that said Addenda shall become part of the Contract (Bidder shall list numbers and dates of Addenda received).

No. __________  Date __________  No. __________  Date __________
No. __________  Date __________  No. __________  Date __________

Authorized signature of Bidder

Please check the appropriate category:

_______ Sole Proprietorship  _______ Partnership
_______ Pennsylvania Corporation  _______ Foreign Corporation Registered in PA

The undersigned hereby certifies that this Bid is genuine and not sham, collusive or fraudulent or made in the interest of or on behalf of any person, firm, or corporation not herein named; and that the undersigned has not, directly or indirectly, induced or solicited any Bidder to submit a sham Bid, or any other person, firm or corporation from bidding, and that the undersigned has not, in any manner, sought by collusion to secure for himself any advantage over any other Bidder.

COMPANY NAME
FEDERAL ID# ____________________________________________

STREET ADDRESS  PO BOX  CITY  STATE  ZIP

TELEPHONE # ____________________________________________  FAX # ____________________

Witness or Attest:

__________________________  ____________________________
An Officer, if Bidder is corporation, if not corporation, any competent adult  Owner, Partner, or President/Vice President*

* Bidder to circle appropriate term.

Bidder's Handwritten Initials ________  BID FORM
COUNTY OF BERKS

Proposed Barn Renovations
Angora Fruit Farm Environmental Education Center

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____________________________, as Principal (the “Principal”), and _______________________________, a company organized and existing under the laws of the ________________ of ________________, with a principal office at _________

_________________________, and authorized to do business in the Commonwealth of Pennsylvania, as Surety (the “Surety”), are held and firmly bound, unto the COUNTY OF BERKS as Obligee (the “Obligee”), as hereinafter set forth, in the full and just sum of _______________________________ Dollars ($______________) lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal heretofore has submitted to the Obligee a certain Bid, dated ______________, 20___ (the “Bid”), to perform ______________ Work for the Obligee, in connection with the Proposed Barn Renovations - Angora Fruit Farm Environmental Education Center located in Lower Alsace Township, Berks County, Pennsylvania, pursuant to Drawings, Specifications and other related documents, constituting the Bidding Documents, which are incorporated into the Bid by reference (the “Contract Documents”), as prepared by Masano Architects Group, Inc.; and

WHEREAS, the Obligee, is a “Contracting Body” under provisions of Act No. 385 of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known as and cited as the “Public Works Contractors’ Bond Law of 1967” (the “Act”); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the Principal by the Obligee in accordance with the Bid, the Principal shall furnish this Payment Bond to the Obligee, with this Payment Bond to become binding upon the award of a contract to the Principal by the Obligee in accordance with the Bid; and

WHEREAS, it also is a condition of the Contract Documents that this Payment Bond shall be furnished by the Principal to the Obligee; and

WHEREAS, under the Contract Documents, it is provided, inter alia, that if the Principal shall furnish this Payment Bond and the Performance Bond to the Obligee, and if the Obligee shall make an award to the Principal in accordance with the Bid, then the Principal and the Obligee shall enter into an agreement with respect to performance of such Work (the “Agreement”), the form of which Agreement is set forth in the Contract Documents.

NOW, THEREFORE, the terms and conditions of this Payment Bond are and shall be that if the Principal and any subcontractor of the Principal to whom any portion of the Work under the Contract
Documents shall be subcontracted, and if all assignees of the Principal and of any such subcontractor, promptly shall pay or shall cause to be paid, in full, all money which may be due any claimant supplying labor or materials in the prosecution and performance of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, for material furnished, labor supplied or labor performed, then this Payment Bond shall be void; otherwise, this Payment Bond shall be and shall remain in force and effect.

This Payment Bond, as provided by the Act, shall be solely for the protection of claimants supplying labor or materials to the Principal, any subcontractor of the Principal, any assignees of the Principal, or any assignees of any subcontractor of the Principal in the prosecution of the Work covered by the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents and is conditioned for the prompt payment of all such materials furnished and labor supplied or performed in the prosecution of any portion of the Work. The term “claimant”, when used herein and as required by the Act, shall mean any individual, firm, partnership, association or corporation. The phrase “labor or materials” when used herein and as required by the Act, shall include, without limitation, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site of the Work covered by the Contract Documents. As required by the Act, the provisions of this Payment Bond shall be applicable whether or not the material furnished or labor performed enters into and becomes a component part of the public building, public Work or public improvement contemplated by the Contract Documents.

As provided and required by the Act, the Principal and the Surety agree that any claimant, who has performed labor or furnished material in the prosecution of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, and who has not been paid therefore, in full, before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which payment is claimed, may institute an action upon this Payment Bond, in the name of the claimant, in assumpsit, to recover any amount due the claimant for such labor or material; and may prosecute such action to final judgment and may have execution upon the judgment; provided, however, that: (a) any claimant who has a direct contractual relationship with any subcontractor of the Principal or any assignee of any subcontractor of the Principal, but has no contractual relationship, express or implied, with the Principal, may institute an action upon this Payment Bond only if such claimant first shall have given written notice, served in the manner provided in the Act, to the Principal, within ninety (90) days from the date upon which such claimant performed the last of the labor or furnished the last of the materials for which payment is claimed, stating, with substantial accuracy, the amount claimed and the name of the person for whom the Work was performed or to whom the material was furnished; and (b) no action upon this Payment Bond shall be commenced after the expiration of one (1) year from the day upon which the last of the labor was performed or material was supplied, for the payment of which such action is instituted by the claimant.

This Payment Bond is executed and delivered under and subject to the Act, to which reference hereby is made.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the Work to be performed in accordance with the Contract Documents, and/or any giving by the Obligee of any extensions of time for the performance of the Work in accordance with the Contract Documents, and/or any act of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents, and/or the reduction of any percentage to be retained by the Obligee as permitted by the Contract Documents, shall not release, and/or discharge, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this Payment Bond; and the Surety, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

Provided, that it is expressly agreed that this Payment Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon any amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract Documents as so amended and
the Surety, for value received, does waive notice of any such amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%). The term “Amendment”, wherever used in this Payment Bond and whether referring to this Payment Bond or the Contract Documents, shall include any alteration, addition, extension or modification, whether material or not, and of any character whatsoever.

Provided, further, that no final settlement between the Obligee and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In the event that the Obligee incurs legal fees (e.g., fees of attorneys, paralegals and other legal professionals) for default or enforcement of its rights under the Contract Documents or Payment Bond, the Surety agrees to pay for all reasonable legal fees and costs incurred by the Obligee.

Any dispute resolution proceeding, legal or equitable, under this Payment Bond, shall be instituted in the Court of Common Pleas of Berks County and not elsewhere. In such dispute resolution proceeding, Obligee may join both Principal and Surety as parties, and Principal and Surety hereby consent to such joinder, jurisdiction and venue. This Payment Bond shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law.

IN WITNESS WHEREOF, the Principal and the Surety cause this Payment Bond to be signed, sealed and delivered this _____ day of _______________, 20___.

(Individual Principal)
______________________________ (SEAL)
(Signature of Individual)

WITNESS: Trading and Doing Business as


**************
(Partnership Principal)

WITNESS: (Name of Partnership)
______________________________ BY: __________________________ (SEAL)
Partner
______________________________ BY: __________________________ (SEAL)
Partner
______________________________ BY: __________________________ (SEAL)
Partner

**************
(Corporate Principal)

ATTEST: (Name of Corporation)
______________________________
Secretary (Assistant Secretary)

(CORPORATE SEAL)
or (if appropriate)

WITNESS: ____________________________________  
(Name of Corporation)
____________________________________  *BY:________________________________
(Authorized Representative)

* Attach appropriate proof, with raised corporate seal, dated as of the same date as the Payment Bond, evidencing authority to execute on behalf of the corporation.

**********
(Corporate Surety)

WITNESS: ____________________________________  
(Name of Corporation)
____________________________________  **BY:_______________________________
(Attorney-in-Fact)

** Attach an appropriate power of attorney, with raised corporate seal, dated as of the same date as the Payment Bond, evidencing the authority of the Attorney-in-Fact to act on behalf of the Surety.
ENVIROFAN
Silver Line  60F-7

Specifications:
Size: 48" (curved blades)
Weight: 18 lbs.
CFM: 27,500
Area: 1,800
RPM: 320
Velocity: 600 ft./min.
Amps: 0.61
Volts: 120V, 60 Hz
Safety Cable: 13" (from top of bell)
Cord & Plug: 16" (from top of bell)

Features:
Thermo Protected Motor
Secondary Support Cable
Stamped Steel Motor Housing
Steel Blades
UL Listed • Meets all 507 standards
3 year warranty
10' Downrod (1/2".i.d.)

Northwest Envirofan
A Division of Northwest Environmental Systems, Inc.
Envirofan Ceiling Fans • Pro-vent Guard Ceiling Fan Guards • Fan Controls
800-236-7080  (920) 233-7808  FAX (920) 236-3040

Note:
To reduce risk of injury to persons, install fan so that blades are at least 10 feet above floor.
Technical specifications subject to change without notice.

Northwest Envirofan
Add #3  Attch 184
Envirofan Adjustable Speed Controls
Installation and Operating Instructions
Models 100F 105F 150F 200F 215F 277V-5 277V-6

Features:
- On/Off rotary switch
- Broad range of speed control
- Specifically designed for 2x4" wall box mount
- Includes faceplate, knob, and hardware
- Minimum speed adjustment
- UL recognized

Specifications:

<table>
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<tr>
<th>Model</th>
<th>Volts</th>
<th>Max Amps</th>
<th>Watts</th>
<th>Maximum # of Fans</th>
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</thead>
<tbody>
<tr>
<td>100F</td>
<td>120V</td>
<td>2.5 Amps</td>
<td>300 W</td>
<td>2 fans</td>
</tr>
<tr>
<td>105F</td>
<td>120V</td>
<td>6.0 Amps</td>
<td>600 W</td>
<td>5 fans</td>
</tr>
<tr>
<td>150F</td>
<td>120V</td>
<td>6.0 Amps</td>
<td>600 W</td>
<td>5 fans</td>
</tr>
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<td>200F</td>
<td>120V</td>
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<td>215F</td>
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<td>15 fans prnt</td>
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<td>277V</td>
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<td>1600 W</td>
<td>12 fans prnt</td>
</tr>
</tbody>
</table>

Description:
Envirofan speed controls are a comprehensive line of motor speed controls for air-moving applications which utilize Shaded Pole, Permanent Split Capacitor (PSC), and Universal motors.

Envirofan controls provide adjustable speed operation to permit the consumer individual selection of air volume, motor speed, and noise level. These economical controls are designed to replace obsolete, tapped winding, or reactive methods of speed control. The models cover a wide range of amperages from 2.5 through 15 amps that allow for the selection of the most economical control for the application.

Warranty:
One full year from date of purchase. Obtain a return merchandise authorization (RMA) from Northwest Environfan, and return according to RMA instructions. Northwest will repair or replace at their option and return post paid. Enclose a description of apparent problem. Warranty does not cover misuse, abuse, alterations or repair without authorization from Northwest.

This control is to be used only with fans marked as suitable for use with solid state speed controls. This control is suitable for mounting in a metal or polycarbonate field enclosure. Control must not be used at ratings exceeding those clearly marked on the device.

Technical specifications subject to change without notice.

Northwest Environfan
Envirofan and Agrifan Overhead Ceiling Fans - Fan Controls - Protecto-Guard Ceiling Fan Guards
920-235-7808  800-238-7080  FAX 920-235-3049  www.envirofan.com
Envirofan Adjustable Speed Controls
Installation and Operating Instructions
Models 100F 105F 150F 200F 215F 277V-5 277V-6

Warning:
Disconnect power supply before wiring connections are made to prevent possible electrical shock or damage to equipment.

Read and follow instructions carefully. Failure to comply with instructions could result in fire, electrical shock, injury to persons, and/or damage to equipment. Retain instructions for future reference.

1. All wiring should conform to the National Electrical Code and local regulations.
2. Do not mount in an area which will allow the control to come in contact with moisture.
3. Make certain the entire installation is grounded as a precaution against possible electrical shock.
4. Do not exceed maximum amperage rating of the control as overloading can result in damage to the ceiling fan and control.

Installation and Operation:
1. Turn power off at circuit breaker panel or fuse box.
2. Mounting: Use standard 2" single or double gang wall box. Connect only to line voltage shown on control.
3. Run conduit between wall box, power source and the fan units being controlled. Leave approximately six inches of wire in the box for connections (see figure 1).
4. Make wiring connections (see figure 2). Connect control leads as per diagram to switch box leads. Make sure wire strands are straight and attach the wire leads of the control to the circuit wires by twisting them together. Twist a wire nut onto each connection.
5. Check all connections for tightness. Leave no exposed copper conductor.
6. Position connections in box, leaving room for control.
8. Install front clutch plate. NOTE: Model 100F has permanently attached clutch plate. Remove protective plastic on face of clutch plate if applicable.
9. Turn main control shaft counter-clockwise until a click is heard.
10. Attach control knob by pressing onto shaft firmly so that pointer is in off position.
11. Restore power at circuit breaker panel or fuse box.
12. To turn control on, turn knob clockwise until a click is heard. To decrease fan speed, continue rotating knob clockwise to desired speed setting.

Speed Adjustment:
NOTE: Factory preset low speed setting is low speed setting normally acceptable in most installations.
In the event a slower low speed setting is desired, read the following additional instructions:
1. Set the control on low setting and remove knob and cover plate.
2. Locate minimum speed setting (either on side or front panel of control) and adjust with screwdriver by turning slotted white screw clockwise (to slow speed range) or counter-clockwise (to increase speed range).
3. Motor will now operate from this preset minimum to full speed.
4. Do not adjust so fan/motor stops while control is in the "off" position.

Installation Diagrams:
Figure 1 – Mounting
Figure 2 – Wiring

Northwest Envirofan
Envirofan and Agrifan Overhead Ceiling Fans - Fan Controls - Proteko-Guard Ceiling Fan Controls
920-235-7808 800-236-7030 FAX 920-235-3049 www.envirofan.com
Wiring Fan Controls

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Wiring Diagrams for Riverside Fan Speed Controls

For speeds controls must be wired in parallel with the fan leads. N.O. in parallel. Wiring to parallel will burn out this control.

Installation instructions are provided with the fans and controls. Most qualified installations are mating with the major brand fan speed controls, however the following explanation may be helpful.

The fan speed control is a voltage regulator. In order to control the voltage you must wire the control in series with the fan leads. The other wire from the control is tied to the neutral lead.

The wiring of the fan speed control is similar to wiring a common-volt light switch. The fan speed control is wired in series or in parallel to the fan lead from the fan motor and the AC voltage. Normally, opening and closing the voltage supply as well as regulating the AC voltage to the fan motor.

A common error is to tie the control in parallel with the AC voltage supply. This works until the control. They assume this to be not and use in parallel. Then current the control more in parallel with the switch to the box. The fan has one resistor in parallel. The capability is properly regulate the AC voltage to the fan motor.

An incorrect installation to the control is parallel with the AC voltage supply. The series voltage drop from the control. They assume this to be not and use in parallel. Then current the control more in parallel with the switch to the box. The fan has one resistor in parallel. The capability is properly regulate the AC voltage to the fan motor.

The incorrect condition is that they have a faulty control. Many times they will repeat the same wiring process with a replacement control, which ends them to determine the test. It is difficult. However, there is a test to be sure that the control is aware that the fan will be run in parallel with the hot leads.

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