

**City of Knoxville  
INVITATION TO BID**

**Traffic Signal Controller Cabinets**

Sealed bids, invited by the City of Knoxville, will be received by the Purchasing Agent of the City of Knoxville, in Room 667-674, City County Building; 400 Main Avenue; Knoxville, Tennessee, until 11:00:00 a.m. (Eastern Time) on December 22, 2016, at which time they will be opened and publicly read aloud and a fixed price agreement awarded as soon thereafter as practicable. Term of the agreement shall be for one year with two optional one-year renewals.

The City of Knoxville wishes to purchase four (4) pad-mount and four (4) pole-mount controller cabinets for installation by City staff.

Additionally, the City intends to award a fixed price agreement to the most responsive, responsible bidder, reserving the right to exercise the option to purchase additional systems as specified herein at the same terms and conditions within the term of the agreement. The City does not guarantee nor does it commit to the purchase of additional systems.

**SPECIFICATION**

**IMPORTANT NOTE: Bids must be accompanied by written warranty information.**

Controllers shall be housed in rigid, weatherproof cabinets, constructed, finished and equipped as detailed throughout this document. All cabinets shall be wired to TS 2 Type 2 standards. Unless specifically specified differently in the drawings and specifications for a particular project, all the following shall be included when a Knoxville cabinet is provided.

**1. MATERIAL, WORKMANSHIP, DIMENSIONS AND LAYOUT**

- A. All cabinets shall be of weather tight construction fabricated from aluminum sheet minimum 0.125 in. (3 mm) thickness or cast aluminum alloy minimum 0.25 in. (6 mm) thickness.
- B. The interior of each cabinet shall be powder coated white to reduce overall cabinet temperature, reduce glare, and increase ambient light during night time troubleshooting in the cabinet.
- C. All pad-mounted cabinets should be 72" high X 40" wide X 26" deep unless a different size is specified in the plans. Due to many size differences between manufactures we will accept cabinet height sizes from 70" to 75".
- D. All pole-mounted cabinets shall be 60" high X 36" wide X 16.5 deep at a minimum, unless a different size is specified in the plans. The pole mounted cabinet will be determined on a per job basis.
- E. All pole-mounted cabinets shall be equipped with a removable bottom panel to facilitate optional pad mounting.
- F. All cabinets shall have a name plate riveted to main door approximately 16.5"W x 4"H with two lines of one inch text that displays "CITY OF KNOXVILLE" on first line and "TRAFFIC CONTROL" on second line. Inside each letter shall be clearly identified with black paint that will

bond to the surface of plate. Please contact the City of Knoxville for current design standards. Please contact the City of Knoxville for current design specs.

- G. All pad-mounted cabinets shall have cabinet flanges welded to the cabinet base to accommodate standard Knoxville base and anchor bolt pattern. There shall be four (4) anchor bolt holes that center the cabinet over anchor bolts located 30" apart center to center in width and 18" center to center front to back. Each mounting hole shall be 1" x 2" oblong (front to back) to accommodate anchor bolts.
- H. All shelves and panels shall mount on C-Channel type rails and be fully adjustable by loosening panel bolts.
- I. No fewer than three shelves shall be provided to support controller and auxiliary equipment. Shelves shall be a minimum of 10" deep. Shelves shall be the entire inside width of cabinet minus mounting rails. The shelves shall have slots aligned with the cabinet mounting rails. All shelves shall be secured with spring mounted nuts and hex head bolts. "Drop in" shelves secured with Nylon cable ties are not allowed. The front edge of the shelf shall be punched every 6" to accommodate tie-wrapping of cables/harnesses.
- J. Cabinet Main Back panel shall have a hinged type mount at the bottom of the panel to facilitate rotating the panel forward for inspection of the rear wiring.
- K. All feed through terminals shall be soldered. The use of crimp on style connectors on the rear of the panel will not be accepted.

## **2. DOORS**

- A. Cabinets shall have a hinged front opening door which shall include substantially the full area of the front of the cabinet and be hinged on the right side facing the outside of the cabinet. There shall also be a rear door the same dimensions as the front door and hinged on the right side facing back of cabinet.
- B. Both front and back doors shall be equipped with a positive hold fast device to secure the door in at least two open positions; one position at approximately 90 degrees and the other at 120 degrees or more.
- C. The holdfast device shall be easily secured and released without the use of tools.
- D. The top of the cabinet shall incorporate a 1" slope toward the rear to prevent rain accumulation.
- E. Cabinets shall also be equipped with a switch compartment and the manual switches specified in this section and shall have a hinged front opening auxiliary door. Each door shall have a gasket to provide a weatherproof seal when closed.
- F. All surfaces shall be free from weld flash. Welds shall be smooth, neatly formed, free from cracks, blowholes and other irregularities. All sharp edges shall be ground smooth.
- G. A rain channel shall be incorporated into the design of the main door opening to prevent liquids from entering the enclosure.
- H. The main door shall have No. 2 pin-tumbler cylinder lock.
- I. The auxiliary front door shall have a standard police sub-treasury lock.
- J. Two (2) keys for each lock shall be provided for each cabinet.

**3. VENTILATION** - Unless otherwise specified, ventilation shall be provided as follows:

- A. All cabinets shall be ventilated through internal baffles located in the top front and rear of the cabinet.
- B. Inlet ventilation openings shall be filtered on the front and rear door. Inlet ventilation openings shall be filtered using size 14" X 20" X 1" filter.
- C. Cabinets shall be provided with two independently controlled exhaust fans.
- D. Exhaust fans shall consist of an electric fan with ball or roller bearings and a capacity of at least 100 ft<sup>3</sup> (3 m<sup>3</sup>) per minute.
- E. The fans shall be mounted in a rain tight housing attached to the plenums inside the top front and rear of the cabinet.
- F. Each fan shall be controlled by thermostats having a temperature differential between turn-on and turn-off of 15° F (0, +5° F) (8° C (0, + 3° C)), adjustable for turn-on through a minimum calibrated range of from 100° to 150° F (38 to 65° C).

**4. SLIDING STORAGE DRAWER** - All cabinets shall include a sliding storage drawer mounted under lower shelf in accordance with the following:

- A. Approximate exterior dimensions of 1.75 inches (H) x 16 inches (W) x 14 inches (D).
- B. Telescoping drawer guides to allow full extension from beneath the shelf using ball bearings.
- C. Opening storage compartment lid to access storage space for cabinet documentation and other items.
- D. Supports a weight of 25 pounds when extended.
- E. Non-slip plastic laminate surface attached to the compartment lid which covers a minimum of 90% of the surface area of the drawer lid.
- F. The drawer shall be installed in accordance to 5(D) below.

**5. AUXILIARY EQUIPMENT** - Except for cabinets used in special applications, all cabinets shall be fitted with the following:

- A. All terminal panels shall be arranged for adequate electrical clearance.
- B. One (1) eight-position outlet strip located on the right side of the cabinet, mounted so as not to interfere with shelf space. The outlet strip should be mounted either on a 45-degree angle or a 90-degree angle so large power supplies for devices may be accommodated.
- C. LED type lighting mounted on the plenum, under the front of each shelf, and over the rear of the back-panel. All LED lights shall be controlled by a door switch.
- D. A form-fitting enclosure with two (2) cavities measuring approximately 10" X 17" X 3" shall be mounted to the bottom shelf to secure BBS batteries, the document drawer shall attach to the bottom of the enclosure.
- E. The back panel shall include module "plug-in" type load capacitors for signal output and incorporate MOV (metal oxide varistors) for surge providing capacitive loading and MOV protection. MOV protection shall be provided for each output. Capacitive loading shall be

available for each output or for green and yellow outputs only. Capacitive loading shall provide an AC impedance equivalent to the DC resistance provided by a 1.5 K-ohm resistor. Modules shall be accessible from the front of the load bay and replaceable within a few seconds.

F. A main power distribution assembly (PDA) on the right cabinet wall shall contain the following:

- (1) The top, front, and sides of the panel shall be protected by a clear plastic cover and with openings to allow access to the circuit breakers. The rear and bottom shall be open for ventilation.
- (2) GFI outlet in the front panel
- (3) A removable/serviceable multi-stage surge suppressor equivalent to Hesco HE1750
- (4) Minimum requirements for Circuit Breakers:
  - i. Main power Input to provide all power associated with normal operation.  
(30 Amp)
  - ii. Equipment power to provide power to all associated cabinet equipment.  
(10 Amp)
  - iii. Service entrance power to provide power for the lamp and duplex receptacle.  
(10 Amp)
  - iv. Sign power (15 Amp) to provide power to street name signs (if required by plans)
- (5) Radio Interference Filter (RFI) which meets the requirements set forth in Section 5.4.2.5 of the NEMA Standards Publication No. TS 2-2003 or later revision.
- (6) A normally-open, 50-amp, solid state relay (SSR) signal contactor.
- (7) Bus bars:
  - i. One 6-Position alloy for PDA chassis ground (earth) connections.
  - ii. One 6-Position alloy for PDA AC- (neutral) connections. This bus bar shall be isolated from the panel and cabinet.

G. Bus bar panel located directly under the PDA on the right cabinet wall with:

- (1) Minimum of one 17 position bar for chassis ground (earth)
- (2) Minimum of two 17 position bars for AC- common return (neutral). This bus bar shall be isolated from the panel and cabinet.

H. The MMU channel inputs shall be terminated at the closest tie point to the field termination of the signal displays.

I. Where required to perform specified functions general purpose relays shall be provided.

J. Common Ground System: AC – return (neutral) and chassis (earth) must be referenced to a single ground point at the electric service.

K. Logic ground may be connected to AC- or chassis at the detector power terminal panel.

L. Provide a plug in pedestrian push button Isolation device to completely isolate pedestrian push buttons from AC-, chassis, and logic ground.

M. Individual phase pedestrian test switches to be toggle type of the on-off-momentary type located at the top of the loop panel to place:

- (1) Up- "CALL" – locked detector call
  - i. Center - "AUTO" – no call – Call provided by detectors.
  - ii. Down - "TEST" – momentary detector call

- N. A police switch panel behind the auxiliary door to contain the following switches:
- (1) A signals on/off switch.
  - (2) An auto/flash switch, which shall be wired when in the flash position, shall cause the cabinet to provide flash operation and stop time shall be applied to the controller.
  - (3) Auto/manual switch to activate manual control enable.
  - (4) Manual control pushbutton switch with self-coiling cord. Cord shall attach to a two-position terminal strip via fork type connectors
- O. A technician switch panel inside the main door to contain the following switches:
- (1) Equipment power on/off switch for controller and monitor.
  - (2) A stop-time switch to apply stop time to both controller rings.
  - (3) A signal on/off switch which will remove the AC power applied to the signal heads for normal operation while the controller continues to operate.
  - (4) A signal auto/flash switch to enable intersection flash when in the flash position.
  - (5) Switch terminals on back of main cabinet door shall be insulated or shielded so that no live parts are exposed for safety.
  - (6) All switches protected from accidental actuation by hinged clear plastic cover.
- P. Leads to the auxiliary door and technician switch panel switches shall be stranded and no less than:
- (1) # 8 AWG for Signal On/Off Switch
  - (2) # 18 AWG for all other AC switches.
  - (3) # 20 AWG for all DC switches.
- Q. A TS2 Port-3 FSK communications panel shall be provided with:
- (1) Aluminum panel mounted on left cabinet wall.
  - (2) Two 5-position terminal blocks for transmit pair, receive pair, and ground in and out of surge suppresser.
    - i. EDCO PC642-008D surge suppresser or approved equivalent and base.
    - ii. TS2 9-Position FSK communications harness.
- R. Each cabinet shall include on the left side wall a loop panel which includes:
- S. Terminal blocks to accommodate the termination of loop lead in wires and pedestrian push button wires.
- T. EDCO surge bases and accompanying EDCO PC-642C-030 surge suppressors or equivalent to terminate incoming vehicle call input wires, pedestrian push button wires and loop lead in wires.
- U. All termination and function locations shall be clearly identified with permanent style labels.
- V. A ground bar of at least 17 positions at the lower edge of the panel.
- W. Each cabinet shall include on the left side wall a preemption panel compatible with Trafficware controllers:
- (1) Terminal blocks to accommodate the termination of incoming preemption wires.
  - (2) A bank of relays for conveying preemption calls to the controller.
  - (3) All termination and function locations shall be clearly identified with permanent style labels.

X. All cabinets to include sixteen I/O load switches, one flasher, six flash transfer relays, one BIU and four detector cards (two channel variety).

6. **WIRING** - The cabinet shall be wired according to the following:

**Back-panel**

- A. Shall be wired for 8 vehicle movements, 4 pedestrian phases and 4 overlaps (sixteen channels).
- B. Sixteen NEMA input and output indicating load switches and bases shall be provided.
- C. Shall be wired for 8 flash relay bases to allow any loadswitch (phase) outputs to flash Yellow, Red, or no-flash.
- D. Cabinet main back panel signal outputs shall use both color-coded red, yellow and green wires and red, yellow and green labels for easy identification.
- E. All pedestrian and overlap signal wires shall feed to their back panel positions from below the terminal strips and not travel over the face of the back-panel and other signal wires.
- F. Provide four (4) terminal screw downs per channel, one each for red, yellow, green and flash.
- G. Color coded labels shall be placed on the inside of the front cabinet door to illustrate the procedure for changing the signal output flash colors.
- H. Detector rack (eight two-channel slots) shall be included and shall be wired and clearly labeled:
  - (1) Slot-1 PH-1/6
  - (2) Slot-2 PH-2/5
  - (3) Slot-3 PH-3/8
  - (4) Slot-4 PH-4/7
  - (5) Slot-5 PH-1/6
  - (6) Slot-6 PH-2/5
  - (7) Slot-7 Pre-3/4
  - (8) Slot-8 Pre-1/2

**Individual phase vehicle detector test switches** shall be included and shall be toggle type of the on-off-momentary type located at the top of the loop panel to place:

- A. Up-“CALL” – locked detector call
- B. Center - “AUTO” – no call – Call provided by detectors.
- C. Down - “TEST” – momentary detector call

**Wire type**

- A. All wiring, 14 AWG and smaller, shall conform to MIL-W-16878/17, Type B/N. The wire shall have a minimum of 0.010 inches thick PVC insulation with clear nylon jacket.
- B. All wiring larger than 14 AWG shall have UL listed THHN/THWN 90 degrees Celsius. 600V, 0.020 inches thick PVC insulation with clear nylon jacket.

**Power Supply** The cabinet shall include a cabinet power supply meeting the requirements of NEMA specification TS2. The power supply shall be completely enclosed in an aluminum housing, shall be shelf mounted, and shall provide the following voltage and current outputs:

- A. +12 VDC +/- 1 VDC, 2.0 A
- B. +24 VDC +/- 1 VDC, 2.0 A
- C. 12 VAC, 0.25 A
- D. Outputs shall be fused with slow blow fuses of the ratings indicated.
- E. AC power input shall be protected against over current with a 2 Amp slow blow fuse.
- F. LED indicators on the front panel shall denote the presence of 12 VAC, 24 VDC and 12 VDC and the 60 Hz reference signal Test points for logic common and +24 VDC shall also be provided on the front panel.
- G. The power supply harness shall be connected to a terminal block at the top of the cabinet detector panel.
- H. The panel shall have a decal that is color coded to indicate all voltage and ground bus connections for safety reasons. A clear plastic cover shall be placed over the terminal bloc to prevent accidental contact with line voltage terminals.

**7. BUS INTERFACE UNIT (BIU) -** The cabinet shall include:

- A. A detector rack with provision for a BIU as defined in Section 8 of NEMA Standards Publication No. TS 2, 2003 or later revision.
- B. One (1) BIU that shall be a NEMA designated BIU2 as listed in Table 8-1 of NEMA Standards Publication No. TS 2-2003 or later revision.
- C. One (1) SDLC distribution panel with connectors for 10 SDLC cables.
- D. Three (3) SDLC cables one each for MMU, Controller, and detector rack BIU.
- E. The cabinet assembly shall have provision for supporting detection inputs by means of NEMA TS1 interface method or by NEMA TS2 BIU method. The cabinet assembly shall be easily converted from one interface method to the other. Converting from one method to the other shall not require replacement of the detection rack. When utilizing the TS1 method, detector calls shall be routed via a modular harness from the detector rack to the back-panel assembly and the vehicle call inputs to the controller. A BIU shall not be employed. When using the TS2 BIU method, the detector rack shall use a standard BIU to route detector calls to the controller via the SDLC Port 1 bus and the modular TS1 harness shall be removed. It shall not be necessary to reconfigure numerous jumpers to make the switch from TS1 to TS2 detection.

**8. LIGHTNING PROTECTORS AND INTERFERENCE SUPPRESSORS -** Ample lightning protectors to provide effective defense against high transient voltages caused by lightning discharges or other sources shall be provided. Each controller cabinet must be furnished with the following surge protection devices:

- A. Main power suppressor shall be EDCO SHP-300-10 or approved equivalent for all but flasher or remote detector cabinets and shall have the following characteristics:
  - (1) Peak surge current: 20,000 amperes
  - (2) Clamp voltage: 340 Volts
  - (3) Response time: Voltage NEVER exceeds 340 volts
  - (4) Continuous current: 10 AMPS at 120 VOLTS AC

B. Power protector for controller flasher, flashing beacon, and remote detector cabinets:

- (1) Peak current: 15,000 amperes
- (2) Power dissipation: 15 watts
- (3) Peak voltage: 650 volts

C. Controller detector input terminals (vehicle and pedestrian) shall be terminated at a plug-in surge suppressor, EDCO PC-642C-030 or approved equivalent, and have the following characteristics:

- (1) Peak Surge Current: 400 Amps Differential Mode
- (2) Response Time: 40 Nanoseconds
- (3) Input Capacitance: 35 pf typical
- (4) Clamp Voltage: 30 Volts Max (either mode)

**9. FLASH RELAYS, AUXILIARY RELAYS, AND FAN** shall be provided with a resistor/capacitor circuit to suppress generated noise.

## INSTRUCTIONS AND CONDITIONS

1. Sealed bids will be received by the Purchasing Agent of the City of Knoxville in Room 667-674, City/County Building; 400 Main Avenue; Knoxville, Tennessee 37902 until **December 22, 2016, at 11:00:00 a.m.**, at which time they will be publicly opened and read aloud and the contract awarded as soon as practicable. **No bid will be received or accepted after the above-specified time for the opening of bids.** Bids that arrive late due to the fault of U. S. Postal Service, United Parcel Service, DHL, FEDEX, any delivery/courier service, or any other carrier of any sort are still considered late and shall not be accepted by the City. Such bids shall remain unopened and will be returned to the submitting entity upon request.
2. The City of Knoxville reserves the right to reject any or all bids, to accept or reject any items thereon, to waive technicalities or informalities, to split orders if in the best interest of the City, to evaluate bids by various criteria, and to accept any bid which, in its opinion, may be for the best interest of the City.
3. Included in the Invitation to Bid is an affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this bid or any other bid. The Bidder will be required to execute and submit this affidavit with the sealed bid.
4. **Each bid must be submitted in a sealed mailing envelope, addressed to the Purchasing Agent, City of Knoxville, Room 667-674, City/County Building, 400 Main Street, Knoxville, Tennessee, 37902. Each sealed mailing envelope containing a bid must be plainly marked on the outside as: "Controller Cabinets."**
5. **NO CONTACT POLICY:** After the posting of this solicitation to the Purchasing Division's website, any contact initiated by any proposer with any City of Knoxville representative concerning this proposal is strictly prohibited, unless such contact is made with the Purchasing Division representative listed herein or with said representative's authorization. Any unauthorized contact may cause the disqualification of the proposer from this procurement transaction.



6. **INCLEMENT WEATHER:** During periods of inclement weather, the Purchasing Division will enact the following procedures with regard to solicitations and weather delays:
  - If City offices are closed due to inclement weather on the date that bids/proposals/qualifications/letters of interest are due into the Purchasing Office, all solicitations due that same day will be moved to the next operational business day.
  - The City of Knoxville shall not be liable for any commercial carrier's decision regarding deliveries during inclement weather.
7. All bids must be made on the Bid Form supplied with the contract documents, and no interlineations, excisions, or special conditions shall be made or included in the Bid Evaluation Sheet by the Bidder. **Any bid on which there is an alteration of or departure from the Bid Form may be considered irregular and may be rejected.** All bids must be signed in full by the Bidder or Bidders in their business name or style when submitted and must show his or their complete address.
8. No bidder may withdraw his bid for a period of 60 days after the actual date of the opening thereof.
9. Prior to submitting their bids, bidders are to be registered with the Purchasing Division by setting up a Vendor Self-Service Account. Instructions for registering on-line are available at [www.knoxvilletn.gov/purchasing](http://www.knoxvilletn.gov/purchasing). **Bid submissions from un-registered bidders may be rejected.**
10. Payment for completed services delivered to and accepted by the City shall be at the contract price.
11. State make or brand on each item. If bidding on other than the make, model, or brand specified, the manufacturer's name and catalog number must be given, along with warranty information and detailed specifications. Because the City is committed to environmentally sound practices, brands are expected to be procured with environmental responsibility in mind.
12. Time of delivery is part of the consideration and must be stated in definite terms; time of delivery is guaranteed by the bidder and must be adhered to upon award. If time varies on different components, the bidder shall so state.
13. All bids must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.
14. Bidders shall verify bids before submission, as bids cannot be withdrawn or corrected after being opened. Bids will be evaluated by unit price.
15. Prices are considered FOB Knoxville unless otherwise stated in the Invitation to Bid.
16. By execution and delivery of a bid submission, the bidder agrees that any additional terms and conditions, whether submitted to the City purposely or inadvertently, shall have no force or effect.
17. Regarding the Equal Business Opportunity Program contracting, the appropriate Form 1 or Form 2 **must** be submitted with the bid. Successful bidders who include Form I with their bid, stating their intent to use MOB or WOB subcontractors for any part of the contract, will be required to submit Form III, Statement of Payments to MOB/WOB Subcontractor(s) & Supplier(s). Contractors will use Form III to report the amount(s) they have paid to MOB and/or

WOB subcontractors on June 30th and December 31st of each year during the life of the contract and with the final payment. Failure to submit this reporting data may result in a delay of payments. Final payment will not be released by the City until Form III is submitted.

18. Bidders must comply with the President's Executive Orders No.11246 and 11375 which prohibit discrimination in employment regarding race, color, religion, sex or national origin. Bidders must not maintain or provide for their employees any facilities that are segregated on the basis of race, color, religion or national origin. Bidders must also comply with Title VI of the Civil Rights Act of 1964, Copeland Anti-Kick Back Act, the Contract Work Hours and Safety Standard Act, Section 402 of the Vietnam Veterans Adjustment Act of 1974 and Section 503 of the Rehabilitation Act of 1973, all of which are herein incorporated by reference.
19. All bidders must comply with Title VI of the Civil Rights Act of 1964, as codified in 42 U.S.C. 2000d. The successful bidder must follow Title VI guidelines in all areas including hiring practices, open facilities, insurance, and wages. The City of Knoxville reserves the right to review all compliance records by a contract compliance officer designated by the City.
20. No interpretation of the meaning of the plans, specifications, or other pre-bid documents will be made to any bidder orally. Each request for such interpretation should be in writing addressed to Janice McClelland, Assistant Purchasing Agent for the City of Knoxville, 400 Main Street, Room 667, Knoxville, TN 37902, or emailed to her at [jmcclelland@ www.knoxvilletn.gov](mailto:jmcclelland@www.knoxvilletn.gov). To be given consideration, such requests/questions must be received no later than close of business on December 15, 2016. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted to the City's website at [www.knoxvilletn.gov](http://www.knoxvilletn.gov). Submitting organizations are strongly encouraged to view this website often to see if addenda are posted. Failure of any bidder to receive such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.
21. Attention of all bidders is directed to the set off provision contained in Article II, Section 24-33, entitled, "Debts owed by persons receiving payments other than salary", and Section 2-1049 entitled "Receipt of benefits from City contracts by council members, employees, and officers of the City" of the Code of the City of Knoxville.
22. Where applicable, the successful Bidder will be required to pay prevailing wages to those whom they employ (to include any sub contractors). Information regarding the prevailing wage rates may be obtained on the following State of Tennessee website: [www.state.tn.us/labor](http://www.state.tn.us/labor).
23. Before a Purchase Order is issued, the submitting entity, if selected, **must** provide the City Purchasing Division with a copy of its valid business license **or** with an affidavit explaining why it is exempt from the business licensure requirements of the city or county in which it is headquartered. If a contract is signed, the contractor's business license shall be kept current throughout the duration of the contract, and the contractor shall inform the City of changes in its business name or location. Any Agreement to purchase resulting from this Invitation to Bid shall be governed by and construed in accordance with the substantive laws of the State of Tennessee and its conflict of laws provisions. Venue for any action arising between the City and the Vendor from the Agreement shall lie in Knox County, Tennessee.
24. By acceptance and delivery of the Purchase Order resulting from the award of this Invitation to Bid, the Vendor agrees to the following:

Contractor shall defend, indemnify and hold harmless the City, its officers, employees and agents from any and all liabilities which may accrue against the City, its officers, employees and agents or any third party for any and all lawsuits, claims, demands, losses or damages alleged to have arisen from an act or omission of Contractor in performance of this Agreement or from Contractor's failure to perform this Agreement using ordinary care and skill, except where such injury, damage, or loss was caused by the sole negligence of the City, its agents or employees.

Contractor shall save, indemnify and hold the City harmless from the cost of the defense of any claim, demand, suit or cause of action made or brought against the City alleging liability referenced above, including, but not limited to, costs, fees, attorney fees, and other expenses of any kind whatsoever arising in connection with the defense of the City; and Contractor shall assume and take over the defense of the City in any such claim, demand, suit, or cause of action upon written notice and demand for same by the City. Contractor will have the right to defend the City with counsel of its choice that is satisfactory to the City, and the City will provide reasonable cooperation in the defense as Contractor may request. Contractor will not consent to the entry of any judgment or enter into any settlement with respect to an indemnified claim without the prior written consent of the City, such consent not to be unreasonably withheld or delayed. The City shall have the right to participate in the defense against the indemnified claims with counsel of its choice at its own expense.

Contractor shall save, indemnify and hold City harmless and pay judgments that shall be rendered in any such actions, suits, claims or demands against City alleging liability referenced above.

The indemnification and hold harmless provisions of this Agreement shall survive termination of the Agreement.

### **BID SUBMISSION REQUIREMENTS**

Bidders must furnish the following information in writing with their submission:

1. Bid Form showing bidder's name, address, quoted price, business license number, date of expiration of business license. A copy of the bidder's current business license may be submitted in lieu of providing the license expiration date.
2. Warranty Information
3. Non-Collusion Affidavit
4. Iran Divestment Act of 2014 Certification of Noninclusion
5. Form I **or** Form II to indicate Title VI compliance

**CITY OF KNOXVILLE**

**BID FORM**

TO: Purchasing Agent  
City of Knoxville  
Suite 667-674  
City/County Building  
400 Main Street  
Knoxville, TN 37902

Having carefully examined the specifications entitled "Controller Cabinets" to open on December 22, 2016, at 11:00:00 a.m. and the other Contract Documents and addenda, and having familiarized ourselves with the existing conditions of the job, we hereby propose to furnish the supervision, labor, materials, equipment, delivery, and services to do the work as stated for the following sum:

BID: Total charge (includes shipping): \_\_\_\_\_

GUARANTEE of delivery no later than: \_\_\_\_\_

Firm Name: \_\_\_\_\_

Official Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
(By)

\_\_\_\_\_  
(Name Typed)

\_\_\_\_\_  
(Title)

Date \_\_\_\_\_

Terms \_\_\_\_\_

email address \_\_\_\_\_

Telephone \_\_\_\_\_

**NON-COLLUSION AFFIDAVIT OF PRIME BIDDER**

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, deposes and says that:

- (1) He is owner, partner, officer, representative, or agent of \_\_\_\_\_, the Bidder that has submitted the attached Bid;
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- (3) Such Bid is genuine and is not a collusive or sham Bid;
- (4) Neither the said Bid nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached Bid or of any other Bidder, firm, or person to fix any overhead, profit, or cost element of the bid price or the bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Knoxville or any person interested in the proposed Contract; and
- (5) The price or prices quoted in that attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_.

My commission expires: \_\_\_\_\_

# IRAN DIVESTMENT ACT of 2014

## Certification of Noninclusion

**NOTICE:** Pursuant to the Iran Divestment Act of 2014, Tenn. Code Ann. § 12-12-106 requires the State of Tennessee Chief Procurement Officer to publish, using creditable information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105. Inclusion on this list makes a person ineligible to contract with the state of Tennessee; if a person ceases its engagement in investment activities in Iran, it may be removed from the list. A list of entities ineligible to contract in the State of Tennessee Department of General Services or any political subdivision of the State may be found here:

[https://www.tn.gov/assets/entities/generalservices/cpo/attachments/List\\_of\\_persons\\_pursuant\\_to\\_Tenn. Code Ann. 12-12-106, Iran Divestment Act-July.pdf](https://www.tn.gov/assets/entities/generalservices/cpo/attachments/List_of_persons_pursuant_to_Tenn._Code_Ann._12-12-106,_Iran_Divestment_Act-July.pdf)

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to T.C.A. § 12-12-106.

Vendor Name (Printed)	Address
By (Authorized Signature)	Date Executed
Printed Name and Title of Person Signing	

### NOTARY PUBLIC:

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

My commission expires: \_\_\_\_\_

# EQUAL BUSINESS OPPORTUNITY PROGRAM

## Contracting Component

### SECTION I

#### EQUAL BUSINESS OPPORTUNITY PROGRAM "GOOD FAITH EFFORT PLAN"

The City of Knoxville strongly encourages contractors to employ minority owned businesses and women owned businesses as subcontractors whenever feasible. This is viewed favorably by the City of Knoxville. In fact, the City's goal for minority and women owned business participation is 10 percent of the contract amount.

Prime contractors will consider all competitive sub-bids and quotations received from minority owned businesses (MOB) and women owned businesses (WOB). When a subcontract is not awarded to the MOB/WOB submitting the lowest bid, the prime contractor must document the reason(s) the award was not made in writing. If the Contractor terminates an agreement and/or subcontract with a MOB/WOB, then the contractor is required to strongly consider selection of another MOB or WOB as a replacement.

#### GOOD FAITH EFFORTS

1. Soliciting through all reasonable and available means.
  - a. Advertising
  - b. Written notices to all certified MOB's and WOB's who have the capability to perform the work or provide the service.
  - c. Solicitation of interest must be within sufficient time to allow MOB's and WOB's to respond to the solicitation.
  - d. Faxes, direct mailings, and telephone requests.
2. Providing interested MOB's and WOB's with adequate information about plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
3. Negotiating in good faith with interested MOB's and WOB's.
  - a. It is the **bidder's/proposer's** responsibility to make opportunities available to MOB's and WOB's subcontractors and suppliers and to select opportunities consistent with the available MOB/WOB business subcontractors and suppliers. Evidence of such negotiations includes the names, addresses, and telephone numbers of MOB's and WOB's considered.

- (1) A description of the specifications for the work selection for subcontracting
  - (2) Evidence why agreements could not be reached for MOB's and WOB's to perform the work.
4. Effectively using the services of available minority, women contractor groups, local minority and women business assistance offices, small business groups, and other organizations on a case-by-case basis to provide assistance in the recruitment and placement of minority/women business.

## **SECTION II**

### **MOB/WOB SUBMITTAL TIME FRAME**

The Contractor will submit the following forms with the **bid/proposal**:

**1. "Statement of Intent for MOB/WOB Utilization" (Form I Attached)**

This form will be submitted by the bidder/proposer if he/she plans to subcontract any portion(s) of the work with a MOB and/or a WOB. This form illustrates the areas the Contractor has identified as potential MOB and/or WOB subcontract opportunities and the dollar value associated with these opportunities. The purpose of "Form I" is to measure the Contractor's "**Good Faith Efforts.**" It does not commit the prime to subcontracting these areas only to MOB and WOB firms or release the prime from negotiating with MOB/WOB firms for subcontract opportunities.

OR

**2. "Statement of Intent of Performing Work Without Subcontracting" (Form II Attached)**

This form will be submitted if the bidder/proposer does not plan to subcontract any portion(s) of the work and if there are not any sufficient material purchases in which MOB/WOB firms can be utilized. The bidder/proposer must certify that this has been a typical practice on projects of similar scope and dollar value. By submittal of Form II, the Contractor certifies that:

- (1) He/she does not typically subcontract on projects of similar scope and dollar value.
- (2) He/she will not enter into any subcontract for duration of the project, and if he/she does decide to subcontract any portion of the work, he/she will: notify the City immediately of the decision to subcontract and adhere to the provision of "**Good Faith Efforts**" in filling that subcontract opportunity.

**The Purchasing Division may request the apparent low bidder/proposer to provide additional information to clarify the bidder's/proposer's responsiveness and intent in this regard.**

These documents will be received by the Purchasing Division upon submission of a proposal/bid. Additionally, prime contractors who submit Form I stating their intent to use MOB or WOB subcontractors for any part of the contract are required to report the amount(s) they have paid to these



subcontractors on June 30<sup>th</sup> and December 31st of each year. Failure to submit this reporting data may result in a delay of payments. At the time of the final request for payment, the prime shall submit a Statement of Final Payments to MOB and WOB Subcontractors and Suppliers (Form III attached). Final payment will not be released by the City until Form III is submitted.

## SECTION III

### DEFINITIONS

Minority: A person who is a citizen or lawful admitted permanent resident of the United States and who is a member of one (1) of the following groups:

- a. Black American, which includes persons having origins in any of the Black racial groups of Africa;
- b. A Hispanic American, which includes persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race;
- c. Native American, which includes persons who are American Indians or Alaska Native;
- d. An Asian-Indian American, which includes persons whose origins are from Indian, Pakistan or Bangladesh.
- e. An Asian Pacific Islander, which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U. S. Trust Territories of the Pacific and Northern Marinas.

Minority-Owned Business (MOB), Women-Owned Business (WOB): A business which is at least (51%) owned and controlled by minority group members or European American female(s). A MOB/WOB is bonafide only if the minority group interests are real and continuing and not created solely to meet the MOB/WOB requirement. In addition, the MOB/WOB must perform satisfactory work or services to provide supplies under the contract and not act as a mere conduit. In short, the contractual relationship must be bonafide.

Owned and Controlled: A business which is (1) a sole proprietorship legitimately owned by an individual who is a minority or European American female; (2) a partnership or joint venture controlled by minorities or European American females, and in which at least (51%) of the beneficial ownership interests legitimately are held by minorities or European American females; or (3) a corporation or other entity controlled by minorities or European American females, and in which at least 51% of the voting interests and 51% of the beneficial ownership interests are legitimately held by minorities or European American females. In addition, these persons must control the management and operation of the business on a day-to-day basis.

Subcontractor: Any named person, firm, partnership, or corporation which supplies any work, labor, services, supplies, equipment, materials, or any combination of the foregoing contract with the contractor on a public contract.

# FORM I

## STATEMENT OF INTENT OF MOB/WOB UTILIZATION (TO BE SUBMITTED WITH THE BID/PROPOSAL)

We, \_\_\_\_\_, do certify that on the  
(Bidder/Proposer)

\_\_\_\_\_  
(Project Name)

(\_\_\_\_\_)

(Dollar Amount of Bid)

MOB/WOB's will be employed as subcontractor(s), vendor(s), supplier(s), or professional service(s). The estimated **dollar value** of the amount that we plan to pay the MOB or WOB subcontractor(s), vendor(s), supplier(s), or professional service(s) is \$\_\_\_\_\_.

MOB/WOB Utilization			
Description of Work	MOB Amount	WOB Amount	Name of MOB/WOB

The undersigned understands that they are to report the annual amount disbursed to these MOB(s) /WOB(s) on June 30<sup>th</sup> of each year. Moreover, the undersigned understands that he/she is required to report the total amount disbursed to MOB(s)/WOB(s) for this project at the completion of the project and that payments may be withheld until these reporting requirements are met.

DATE: \_\_\_\_\_ COMPANY NAME: \_\_\_\_\_

SUBMITTED BY: \_\_\_\_\_  
(Authorized Representative)

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP CODE: \_\_\_\_\_

TELEPHONE NO: \_\_\_\_\_

## FORM II

### STATEMENT OF INTENT TO PERFORM WORK WITHOUT SUBCONTRACTING (TO BE SUBMITTED WITH BID/PROPOSAL)

We, \_\_\_\_\_, hereby certify that it is our  
(Bidder/Proposer)

intent to perform 100 % of the work required for the \_\_\_\_\_

\_\_\_\_\_ contract.  
(Name of Project)

In making this certification, the **Bidder/Proposer** states that:

1. It is a normal business practice of the bidder/proposer to perform all elements of this type contract with its own work forces without the use of subcontracts.

AND

2. If it is necessary to subcontract some portion of the work at a later date, the **bidder/proposer** will comply with all requirements of the "**Good Faith Efforts**" in providing equal opportunity to MOB/WOB Firms to subcontract the work.

The undersigned hereby certifies that he/she has read the terms and agrees to the terms of this statement.

Signature and title of authorized official of the company and the date must be properly executed on this document and a list of previous projects of similar scope and dollar value as stated in Section II attached or the bid may be deemed non-responsive.

DATE: \_\_\_\_\_ COMPANY NAME: \_\_\_\_\_

SUBMITTED BY: \_\_\_\_\_  
(Authorized Representative)

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP CODE: \_\_\_\_\_

TELEPHONE NO: \_\_\_\_\_

# FORM III

## STATEMENT OF PAYMENTS TO MOB/WOB SUBCONTRACTOR(S) & SUPPLIER(S) (TO BE SUBMITTED ON JUNE 30 AND DECEMBER 31 OF EACH YEAR FOR THE LIFE OF THE CONTRACT AND TO BE WITH FINAL PAYMENT REQUEST)

Project:  
Contract#: \_\_\_\_\_

Contractor's  
Name: \_\_\_\_\_

Cert. #	MOB	WOB	Name of Firm / Address & Phone#	Total Amount Paid	Contact Person

I hereby certify that this statement is true and that above payments have been made.

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

By: \_\_\_\_\_  
Contractor's Signature Title

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary  
Public: \_\_\_\_\_

My Commission  
Expires: \_\_\_\_\_