

DISTRIBUTION TRANSFORMERS REQUEST FOR QUOTES

BID OPENING DATE/TIME
NOVEMBER 8TH @ 4:00 P.M.
CITY OF GRAND ISLAND, CITY HALL
100 E. 1ST STREET, P.O. BOX 1968
GRAND ISLAND, NE 68802

ADVERTISEMENT
REQUEST FOR QUOTES
DISTRIBUTION TRANSFORMERS

Sealed Quotes will be received at the City Clerk's Office, 100 E. First Street, Grand Island, NE 68801 or P.O. Box 1968, Grand Island, NE 68802 until 4:00 PM. (local time) on November 8th, 2022, for furnishing a Quote for all cable listed in the attached sheets, F.O.B. for the City of Grand Island Utilities Department. Quotes received after the specified time will be returned unopened to sender.

The specifications, and any addenda, may be viewed on-line at www.grand-island.com under Business-Bid Calendar. Documents for use in preparing the Quote may be downloaded from the Quest CDN website, www.QuestCDN.com for a thirty-dollar (\$30) fee.

Quotes shall be marked "DISTRIBUTION TRANSFORMERS". All Quotes must be signed and dated in order to be accepted. The original Quote and two (2) additional complete copies (3 total) shall be submitted for evaluation purposes. If Quotes are being submitted online via QuestCDN, the submitter is NOT required to submit hard copies. Quotes not containing the correct number of copies will not be considered.

Quotes will be evaluated by the Purchaser based on the firm's ability and responsiveness; experience; schedule and efficiency of operation; rates and fees; reputation and ability to perform the project's requirements.

Quotes shall remain firm for a period of forty-five (45) days after Quote due date. The City of Grand Island reserves the right to reject any or all Quotes and to waive technicalities therein and accept whichever Quote that may be in the best interest of the City of Grand Island, at its sole discretion.

The City of Grand Island does not discriminate on the basis of disability in admission of its programs, services, or activities, in access to them, in treatment of individuals with disabilities, or in any aspect of their operations. The City of Grand Island also does not discriminate on the basis of disability in its hiring or employment practices.

This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. Questions, complaints, or requests for additional information or accommodation regarding the ADA and Section 504 may be forwarded to the designated ADA and Section 504 compliance coordinator.

RaNae Edwards, City Clerk

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1 GENERAL INFORMATION

1.1 DESCRIPTION

The purpose of this RFQ is to procure Fifty (50) - 37.5 KVA, single-phase, pad mount transformers as described herein.

1.2 QUOTE DATE, LOCATION, AND CONTACT INFO

- Sealed Quotes must be received at City Hall by 4:00 P.M. on Wednesday, November 8th, 2022. Quotes may be mailed to the City Clerk's Office (100 E. 1st Street), hand delivered, or submitted online by accessing the Quotes specification calendar at <http://www.grand-island.com/business/s-and-request-for-s/-calendar>. Late s will not be considered.

Note: The Grand Island Utilities Department is NOT tax exempt and is subject to State and City sales tax. See the Nebraska Department of Revenue's web site at www.revenue.state.ne.us for contractor's tax information.

- Direct all related questions to Ryan Schmitz at Phone: (308) 385-5463 Ext 2132, Email: rschmitz@giud.com.

1.3 DEFINITIONS

- **City or City of Grand Island** – An employee representative of the City of Grand Island.
- **Vendor** – Representative term for company being awarded a Contract for procurement.

1.4 PRICING

- Provided pricing must be firm and fixed for forty-five (45) days following the quote submittal deadline.

1.5 QUOTE REQUIREMENTS

The following information must be provided/completed and submitted with the Quote:

- **Verification of 10-year history manufacturing transformers.**
- **Provide Completed Bid Sheet.**
- **Provide Completed Information Sheet.**
- **Any exceptions taken to this specification.**

1.6 TRANSFORMER BID SHEET

The enclosed Quote sheet includes the following criteria:

- **Price** – Vendor price shall cover all materials and labor necessary to manufacture and package the transformers for shipment.
- **Total Price** – Total Price will be calculated as:
(50 transformers) x (Unit Price + (\$8.41 x Guaranteed NL Losses) + (\$2.69 x Guaranteed FL Losses)).

- **Guaranteed No-Load Losses & Full-Load Losses** – The guaranteed average, across the entire allotment of transformers, that constitutes this RFQ procurement.
 - The City will NOT credit vendor for any net load losses that exceed guarantees.
 - Deficient variances from the guaranteed numbers, averaged across this order, will be credited back to the City of Grand Island at \$8.41 per watt (No-Load) and \$2.69 per watt (Full-Load).

1.7 TRANSFORMER INFORMATION SHEET

The enclosed information sheet includes the following criteria:

- **Estimated Lead Time** - All orders will be estimated, in good faith, to arrive within this period. This window is assessed from the date of purchase.
- **XFMR Weight** – Typical weight of transformer class
- **Footprint Dimensions** – Typical dimensions of transformer class

1.8 QUOTE EVALUATIONS

Evaluations will be based on the following criteria:

- Transformer Pricing with loss adjustments included.
 - No-Load Losses (assessed at \$8.41 per watt)
 - Full-Load Losses (assessed at \$2.69 per watt)
- Conformance to Specification Requirements

1.9 AWARD PROCESS

Quotes will be analyzed and awarded to a single vendor.

1.10 DELIVERY AND NOTIFICATION

- Shall be F.O.B. Grand Island, Nebraska
- The Bill of Lading is to be marked “Notify Storeroom (Call 308-385-5469), Weekdays, 8-12 or 1-3”.
- Notice for a Monday delivery must be received by 4:00 P.M. on Friday
- Delivery will be accepted only during normal working hours (8 A.M. to Noon and 1 P.M. to 3 P.M. on Weekdays)
- Transformers shipped in an enclosed truck will be rejected. **Flat-bed trucks only.**

2 SINGLE PHASE PAD-MOUNTED TRANSFORMERS REQUIREMENTS

2.1 GENERAL SPECIFICATIONS

All equipment specified herein shall be:

- 60 Hz, Liquid-Immersed, Self-Cooled (ONAN), transformers.
- Low Profile; Maximum height of the transformer, with the door closed, shall be 24 inches.

- Pad-Mounted, Compartmental-Type, Self-Cooled, Single-Phase, dead front, Distribution Transformers with Separable Insulated High-Voltage Connecters. All transformers will be 13,200 Grounded Wye / 7,620 Volts to 240 / 120 Volts.
- Remanufactured or reconditioned equipment will not be considered. All materials must be new.
- Any more restrictive requirements listed here-in shall supersede those detailed in the codes and standards listed.

2.1.1 CODES AND STANDARDS

All transformers must be in accordance with the most recent revision to of the following Standards:

| | |
|----------------------|--|
| ANSI C57.12.38 | (Pad-Mounted Single-Phase Transformers) |
| ANSI C57.12.70 | (Terminal Markings and Connections) |
| ANSI/IEEE C57.12.00 | (General Requirements for Liquid-Immersed) |
| ANSI/IEEE C57.12.90 | (Standard Test Code for Liquid-Immersed) |
| ANSI/IEEE 386 | (Separable Insulated Connections) |
| NEMA TR 1 | (Design Test Method for Cabinet Security) |
| NEMA TR P9; WUG 2.13 | (Security for Pad-Mounted Equipment Enclosures) |
| ANSI C57.12.29 | (Pad-Mounted Equipment – Enclosure Integrity for Coastal Env.) |

2.1.2 CERTIFIED TEST REPORTS

The following standard tests are to be performed with copies of the results for each transformer identified by serial number:

- Percent impedance
- Exciting current
- Applied potential certification
- No-Load losses
- Load losses
- Total losses
- Ratio certification
- Polarity certification
- Full Wave Impulse (1.2 x 50µS)
- Leak Test
- 100% Resistance Testing for all windings on rated voltage connection
- Certification of full nameplate load without exceeding 65° C
- ANSI Short-Circuit certified test reports per ANSI C57.12.00 and ANSI C57.12.90
- Certification of passing results on EEI paint tests on identical units, per current ASTM Standards (salt spray, humidity, impact, weathering, adhesion, and abrasion).

If these are not standard tests, please take exception, and provide the cost of performing the specified tests. The costs of the additional testing will be taken into account during Quote evaluation; the City will have the option of purchasing these tests.

2.1.3 DOCUMENTATION

Each item shall be supplied with one complete copies of transformer documentation including (but not limited to):

- instruction manuals
- drawings
- replacement part manuals
- certified test reports for each transformer
- Note: Documentation must be received before payment is approved.

2.1.4 OIL

- Oil shall have a PCB content of 1 PPM or less
- Transformers to be provided with certification of non-PCB status
- Nameplate labeled as non-PCB
- Nameplate showing number of gallons of oil

2.1.5 TEMPERATURE/INSULATION

Per ANSI C57.12.38 – Under continuous loading at listed KVA rating , Single Phase Transformers must meet the following temperature requirements:

- Not exceed 65 deg C temp rise on windings
- Not exceed 80 deg C hot spot conductor temperature rise
- Not exceed 65 deg C temp rise on insulating oil
- BIL ratings per ANSI C57.12.38

2.1.6 PRIMARY TAPS

Each transformer must meet the following requirements:

- The location for the control shall be in the primary compartment
- Five primary taps; with two 2½% taps below and two 2½% taps above the 7620V of tap C.
- Labeled as being for de-energized operation only
- Externally operable with a hotstick when primary side door is open
- Shall require at least two operator actions to change taps.
- Shall be of a single shaft / direct connection style – between external operation handle and interior mechanism.

2.1.7 PRIMARY FUSING

- Shall be protected by a single RTE Bay-O-Net type fuse (or interchangeable and exact equivalent and noted in the exceptions), located in the primary compartment.
- Fuse holders shall be provided with plastic spill pans/metal drip trays and flapper valves.
- Fused 1½ times to 2 times full load current.
- An under-oil partial range current limiting fuse will be in a series with the Bay-O-Net fuse to provide interrupting up to 30,000 amperes.

2.1.8 WARRANTY

- Warranty must be for a minimum of one year from date of installation or 36 months from date of purchase.

2.1.9 ACCESSORY EQUIPMENT

- Liquid-level gauge located in termination area
- Palletized
- Lifting provisions w/bolts
- Connector and terminal marking
- Replaceable, self-resealing pressure relief device
- Two “Burndy #EQC632C1” grounding lugs shall be installed
- KVA Rating and Secondary Voltage shall be permanently affixed or painted on the outside of the unit.

2.1.10 NAMEPLATE

Based upon IEEE C57.12.00, 5.12.2 – NAMEPLATE ‘A’

- All units of measure (with the exception of temperature) must be depicted in imperial units

2.1.11 CABINET FEATURES

- ½” x 1½ inch penta-head bolt for security of compartment door.
- Meet the IEEE C57.12.29 Standard for Pad-Mounted Equipment - Enclosure Integrity for Coastal Environments.
- Be Stainless Steel (#304L)
- Exterior and Inside Termination Area to be painted standard ANSI 61 GRAY or ANSI 70 GRAY.
- All base coat(s), primer and following layer(s) of paint shall be gray.
- Fuse catalog number and amperage shall be listed inside lid (viewable when open) and brand (if other than RTE).

2.1.12 AUDIBLE SOUND LEVELS

Audible sound levels should not exceed those as specified in NEMA TR-1 – Table 1.

2.1.13 PRIMARY TERMINATIONS AND ACCESSORIES

- Type-2 bushing arrangement as shown on Section 7.5 Figure 4 of ANSI C57.12.38
- Loop feed with bushing wells.
- Double parking stand shall be provided for two cable accessories
- Load break inserts; Cooper #LB1215 or Elastimold #16014-1 (with yellow indicator ring to determine if elbow is fully seated).

2.1.14 SECONDARY TERMINATIONS AND ACCESSORIES

- Type-2 bushing arrangement as shown on Section 7.5 Figure 4 of ANSI C57.12.38-2014 including:
- Three insulated bushings.
- Stud connector per ANSI C57.12.38 – Section 7.5 Figure 4.

3 DETAILS

All transformers must conform to the details shown in the drawing and table below.

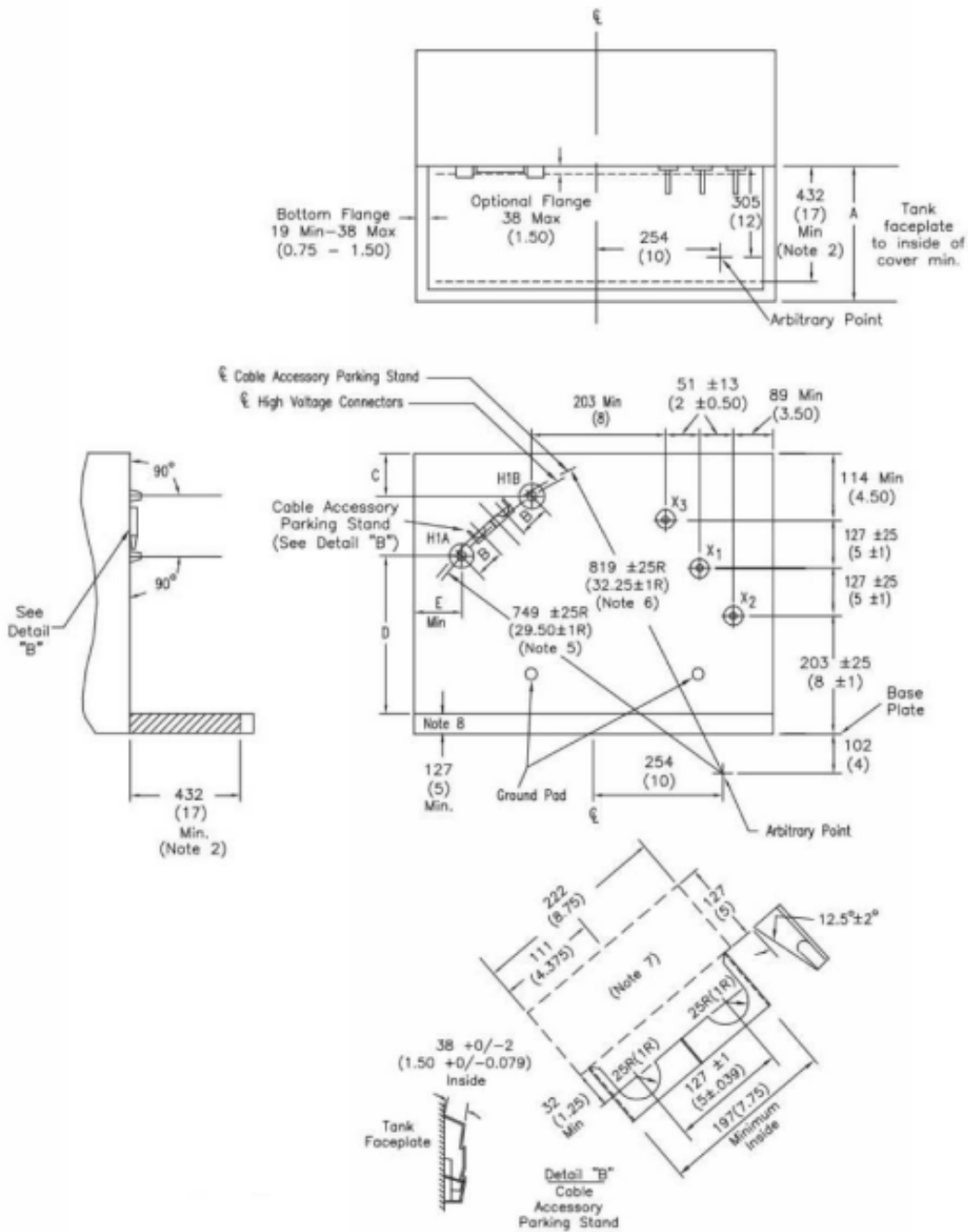


Figure 4—Type 2 arrangement, large interface separable connectors, interchangeability dimensions (for voltage-specific dimensions and notes, see Table 5)

Table 5—Voltage-specific dimensions for Figure 3 and Figure 4

| Separable insulated connector high-voltage rating kV | Figure | A min. mm (in) | B min. mm (in) | C min. mm (in) | D min. mm (in) | E min. mm (in) |
|--|--------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 8.3 and 8.3/14.4 | 3 | 406 (16) | 127 (5) | 101 (4) | 76 (3) | 83 (3.25) |
| 15.2 and 15.2/26.3 | 3 | 406 (16) | 152 (6) | 146 (5.75) | 76 (3) | 83 (3.25) |
| 21.1 and 21.1/36.6 (Refer to IEEE Std 386 Figure 7) | 3 | 406 (16) | 152 (6) | 146 (5.75) | 76 (3) | 102 (4) |
| 21.1 and 21.1/36.6 (Refer to IEEE Std 386 Figure 8 and Figure 9) | 4 | 483 (19) | 127 (5) | 171 (6.75) | 76 (3) | 102 (4) |

NOTE 1— All dimensions are in millimeters. Dimensions in parenthesis are in inches.

NOTE 2— This minimum for cable switching with the door open is the distance from the faceplate (vertical plane) to the first encumbrance which can be the tamper strip, sill flange, or lock pocket.

NOTE 3— When a loop feed is not required, omit the H1B HV connector.

NOTE 4— The low-voltage is shown for additive polarity transformers. The locations for X1 and X3 are reversed for subtractive polarity.

NOTE 5— The radius of the arc through the centerline of high-voltage connectors H1A and H1B with its origin at the arbitrary point.

NOTE 6— The radius of the arc through the centerline of the cable accessory parking stand, shown in Detail "B," with its origin at the arbitrary point

NOTE 7— Minimum clear space, excluding area required for H1A and H1B, required for installing accessory devices in the parking stand.

NOTE 8— 127 mm (5 in) minimum height at front of sill as viewed with door open (inclusive of any baffles).

4 BID SHEETS

| | (A) | (B) | (C) | (D) | (E) | (F) |
|---|------|----------|--------------|---------------------------------------|--|---|
| Single Phase Padmount Transformer Type | KVA | Quantity | Price (each) | Guaranteed No- Load Losses (watts) | Guaranteed Full-Load Losses (watts) | Total Price = B*(C + (\$8.41*D) + (\$2.69*E)) |
| 13.2/7620/240/120 | 37.5 | 50 | | | | |
| | | | | | Total (Sum Column F) | |

5 INFORMATION SHEETS

| Single Phase Padmount Transformer Type | KVA | Estimated Lead Time (weeks) | XFMR Weight (lb) | Footprint Dimensions (inches) |
|---|------|-----------------------------------|------------------------|-------------------------------------|
| 13.2/7620/240/120 | 37.5 | | | |

FIRM SUBMITTING QUOTE _____

SIGNATURE _____