



COVER PAGE

Bid Proposal # 2083

Spun Pre-Stressed Wood Pole Equivalent Concrete Poles – Twelve (12) Month Period

Sealed bids and electronic submitted bids for the above will be received until **10:00 AM CST or CDT, Tuesday, May 31, 2016** and publicly opened in the City of Alexandria Council Chambers or Council Committee Room.

Please file bid by one of the following means:

Hand-Delivered or Express Delivery:

Attention: Donna Jones, City Clerk
City of Alexandria - City Hall
915 Third Street, First Floor
Alexandria, LA 71301
Phone: 318-449-5090

Mailed via USPS:

Attention: Donna Jones, City Clerk
City of Alexandria - City Hall
PO Box 71
Alexandria, LA 71309-0071

Electronic Bid Submission: Central Bidding

Pursuant to Louisiana R.S. 38:2212 B.(6)(a) through E. (1-7) and R.S. 38:2212.1 B.(4)(a), vendors/contractors have the option to submit their bids and bid bonds electronically. Bids and bonds to be filed electronically shall be posted with **Central Bidding** at www.centralauctionhouse.com (phone 1-225-810-4814). Registration will need to be completed prior to posting of bid.

Complete bid specifications are available for viewing and downloading at the City of Alexandria's website www.cityofalexandriala.com ; on the left hand side of the opening page, go to the heading "*Business*" then drop down to "*RFP/RFQ/Bids*"; the current bids will be listed for your convenience.

City of Alexandria Buyer Name: Christine Sims
Phone Number: (318) 441-6183
Fax Number: (318) 619-3414
E-Mail Address: Christine.sims@cityofalex.com



Joe C. Despino
Purchasing Manager

City of Alexandria

Purchasing Department
P.O. Box 71
Alexandria, Louisiana
71309-0071



Office: (318) 441-6180
Fax: (318) 441-6185

Sealed bids will be received until **10:00 AM, Tuesday, May 31, 2016** and publicly opened in the Council Chambers or Council Committee Room.

City of Alexandria Bid Proposal # **2083**
Page: 1 of 29
Date Specifications Prepared:

Bid Bond Requirements: A bid bond or check for N/A% of the total amount of bid.

Performance Bond Requirements: In the event bid is accepted, a performance bond shall be required in the amount of N/A%.

Please file bid with the following:

Donna Jones, City Clerk
City of Alexandria
915 Third Street
P.O. Box 71
Alexandria, LA 71309-0071
Phone: 318-449-5047

INTRODUCTION

SPUN PRE-STRESSED WOOD POLE EQUIVALENT CONCRETE POLES

It is the intent of the City of Alexandria to secure pricing on **Spun Pre-Stressed Wood Pole Equivalent Concrete Poles**, in various lengths, for use by the City of Alexandria Electric Distribution Department. Said material to be inventoried and used on an “as needed” basis. Bids shall remain in effect for a period of twelve (12) months from the bid award date.

All bid prices shall include any and all freight charges. All products are to be shipped F.O.B., freight pre-paid, the City of Alexandria Electric Distribution, located at 1015 N Third Street, Alexandria, LA 71301.

The City of Alexandria reserves the right to award by individual item or by total low bid, whichever is in the best interest of the City of Alexandria. Award shall be based on price and reasonable delivery. The City of Alexandria considers reasonable delivery as ten (10) weeks or less.

Questions and/or requests for clarification of specifications are to be in written form, either mailed, faxed or emailed to the attention of Christine Sims, City of Alexandria Purchasing Department, PO Box 71, Alexandria, LA 71309-0071; Fax # to 318-619-3414; email Christine.sims@cityofalex.com; and must be received by closing prior to close of business day, Thursday, May 19, 2016.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

GENERAL CONDITIONS FOR BIDDERS - PLEASE READ CAREFULLY

1. Pursuant to LA R.S 38:2212.1. C.(1)(2), any manufacturer's preference in this proposal is descriptive, but non-restrictive, and is used only to indicate minimum requirement for type, grade and quality unless otherwise specified.
2. Pursuant to LA R.S. 38:2212 B.(1), the provisions and requirement of this bid shall not be considered as informalities and shall not be waived by the City of Alexandria. Therefore, conditions and specifications on this bid form shall be strictly enforced and any and all alterations, deviations, and non-compliance to said conditions and specifications, either on the bid form or by separate attachment, shall be grounds for immediate disqualification.
3. Preference shall be given to bidders quoting F.O.B. Destination (the City of Alexandria using department), FREIGHT PREPAID, unless otherwise requested.
4. Each bidder shall submit his proposal on the proposal form furnished by the City of Alexandria Purchasing Department. The complete bid package must be returned as issued by the City with all pages intact and all specification response columns filled in. Incomplete columns or missing pages, to include addendum pages, shall result in the vendor's entire bid package being rejected.
5. Literature, brochures, and other related paperwork attached to the bid should be identified with the name of the bidder and bid item number.
6. In case of a mathematical discrepancy between unit price and extensions, the unit price shall prevail.
7. Pursuant to LA R.S. 38:2212 F., the bid specifications may contemplate a fixed escalation or de-escalation in accordance with the United States Bureau of Labor Statistic's Consumer Price Index or the Producer Price Index. Bids based on specifications which are subject to a recognized escalation index shall be legal and valid for any item of a public work, at the discretion of the City.
8. Pursuant to LA R.S. 38:2212.1. F., any public procurement unit may participate in a cooperative purchasing agreement with the City of Alexandria to acquire quantities of the above listed items under a contract with the City of Alexandria for items awarded by public bid, pursuant to the cooperative purchasing provisions of Part VII of Chapter 17 of Subtitle III of Title 39 of the Louisiana Revised Statutes of 1950, R.S. 39:1701 et seq.
9. The City of Alexandria reserves the right to award by item or by total bid, unless otherwise specified in the bid specifications. (Price(s) should be itemized.)
10. All erasures or corrections on the bid form must be initialed and the City of Alexandria may rely on the apparent authority represented by the initials.
11. The City of Alexandria reserves the right to reject for cause any and all bids or parts of bids, or accept bids most beneficial to the City.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

General Conditions for Bidders - Please Read Carefully (Continued)

12. Any bid submitted which contains additions, conditional or alternate bids, or irregularities which may make the proposal incomplete, indefinite, or ambiguous as to its meaning, thus requiring clarification after the specified date and time of bid opening shall be rejected.
13. Bids shall be opened publicly in the City Council Chambers or Council Committee Room.
14. Cash discounts may be accepted, but **SHALL NOT** be considered in making award.
15. Regarding a bid for purchase of materials, supplies or services, not to include construction of any public works, a written notice of acceptance mailed or otherwise furnished to the successful bidder shall result in a binding contract without further action by either party.
16. When any bid is accepted for the construction or doing of any public works, a written contract shall be executed by and between the City of Alexandria and the Contractor. No contract shall be binding upon the City until it has been executed by the City and delivered to the successful bidder. Should the bidder to whom the contract is awarded fail to execute the contract, the award shall then be made to the next lowest responsible bidder, or re-advertised for public bid, said decision to be in the sole judgment of the City of Alexandria. This action may result in the loss of bidding privileges for a period of one (1) year.
17. The City of Alexandria shall schedule for payment the invoices for articles or services purchased under this bid within thirty (30) days after due and proper delivery accompanied by invoice.
18. The City of Alexandria is exempt from all sales taxes. A sales tax exempt form shall be furnished by the City of Alexandria Purchasing Department, if requested.
19. Bidder(s) awarded item(s) by the City of Alexandria shall be responsible for supplying all products at the awarded price(s). Failure may result in the City's cancellation of the remaining items awarded.
20. Regarding Service Contracts and Procurement Contracts, the terms of the contract shall be binding upon any and all parties involved until goods and supplies are delivered, services have been rendered, and/or work has been completed and accepted by the Mayor on behalf of the City of Alexandria and all payments required to be made to the Contractor have been made. However, a contract may be terminated under any and all of the following conditions:
 - (a) By mutual agreement and consent of either party upon thirty (30) days written notice to the other party;
 - (b) By the Mayor, on behalf of the City of Alexandria, as a consequence of the failure of the Contractor to comply with the terms and conditions of the contract or the progress or quality of work to be performed in a satisfactory manner, proper allowance being made for circumstances beyond the control of the Contractor; or
 - (c) By satisfactory completion of all services and obligations described in the contract.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

General Conditions for Bidders - Please Read Carefully (Continued)

If the contract is terminated for any of the terms and conditions authorized in sub-paragraph (b) above, Contractor shall be formally notified in writing by the City of Alexandria Purchasing Department by means of certified mail informing him of cancellation of the contract, giving specific reasons for said cancellation. Contractor shall have the right to appeal to the City Council within ten (10) days from the date that said notification is placed in the U.S. Mail. Contractor's appeal shall be accomplished by means of a letter addressed to the City Council and delivered to the City Clerk, stating that an appeal to the decision of cancellation is desired. The City Council shall thereafter hold a hearing on the appeal, giving all parties the opportunity to present any and all evidence concerning the decision of cancellation. After hearing the appeal, the city Council may, by a majority vote, sustain, modify, or reverse the findings for said decision and shall provide, if requested by Contractor, a written determination of its findings.

21. Contractors submitting bids for Public Works construction projects in excess of \$1.00 must show his Contractor's License Number on the front of the bid envelope, except for certain projects for which a Contractor's License Number is not required by the State Contractor's Licensing Board. Failure to comply with this directive shall result in automatic bid rejection, furthermore, any Contractor who submits a bid for a type of construction for which he is not properly licensed shall be acting in violation of LA R.S. 37:2163, and shall be subject to all provisions for violation and penalties thereof. Contractors who are owned by, and are submitting a bid as a subsidiary of a parent company, whose name is listed in the State of Louisiana's Roster of Licensed Contractors, may do so by including a letter of proof of ownership from the parent company with the submitted bid package. The letter must be signed as per LA R.S. 38:2212 B.(5)(a)(b)(c) (see Item #22 below).

22. All bids submitted via USPS (registered or certified), overnight courier or hand delivered, shall be signed by hand and in ink by an authorized company representative per LA R.S. 38:2212 B.(5)(a)(b)(c), which states:

(c)(i) Evidence of agency, corporate, or partnership authority shall be required for submission of a bid to the division of administration or the State of Louisiana. The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

(aa) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership or partnership in commendam listed in the most current partnership records on file with the Secretary of State.

(bb) The signature on the bid is that of an authorized representative of the corporation, partnership, or other legal entity and the bid is accompanied by a corporate resolution, certification as to the corporate principle, or other documents indicating authority which are acceptable to the public entity.

(cc) The corporation, partnership, or other legal entity has filed in the appropriate records of the Secretary of State in which the public entity is located, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

General Conditions for Bidders - Please Read Carefully (Continued)

23. In-State preferences shall not apply to procurements involving federal funds.
24. Pursuant to LA R.S. 38:2212 O.(2)(a)(b), any modifications of plans and specifications will be made through an addendum. No addendum shall be issued within seventy-two (72) hours of the bid opening, excluding weekends and legal holidays, without the extension of the bid opening date. An extension of at least seven (7) but no more than thirty (30) working days is required but, re-advertising is not required. The addendum shall be transmitted by any one of the following methods: (1) facsimile transmission; (2) e-mail; (3) by hand; or (4) posted on the City of Alexandria's website (www.cityofalexandriala.com) and posted on Central Bidding's website (www.centralauctionhouse.com) if applicable.
25. All Federal Transit Administration (FTA) funded procurements, including operating assistance funding contracts, are to follow the Master Agreement, to include all applicable federal clauses.
- a. Any bidder that is found listed on the Federal Government's *System for Award Management* (SAM) website, at www.sam.gov/portal/sam , under the advanced search feature for *Excluded Parties List System* (EPLS), shall automatically be rejected for the award of this bid, by Category and/or in its entirety. This applies to any portion of the bid that is a procurement funded by FTA.
26. Under the City's *AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program)*, participation by minority and/or disadvantaged business enterprise firms is encouraged. The *AFEAT* Program should be inquired about through the Division of Finance.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

Alexandria Fairness, Equality, Accessibility and Teamwork Program (AFEAT)

Dear Vendor:

Under the City's *AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program)*, participation by minority and/or disadvantaged business enterprise firms is encouraged. The AFEAT Program should be inquired about through the Division of Finance. The goals for qualifying disadvantaged, minority and female owned business in the use of professional service agreements with prime contractors will help effectuate the goals of increasing: the competitive viability of small business, minority, and women business enterprise by providing contract, technical, educational, and management assistance; business ownership by small business persons, minority persons, and women (including professional service opportunities); and the procurement by the City of professional services, articles, equipment, supplies, and materials from business concerns owned by small business concerns, minority persons, and women.

Prime contractors offering subcontracting should take specific action to ensure that a bona fide effort is made to achieve maximum results towards meeting the established goals. Primes shall document efforts and shall implement steps at least as extensive as the following in a good faith effort to reach or exceed the established goals:

- A. Establish and maintain a current list of minority and female owned businesses in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- B. Document and maintain a record of all solicitations of offers for subcontracts from minority or female construction contractor and suppliers in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- C. Secure listing of minority and women owned businesses from the City of Alexandria Purchasing Department, the Central Louisiana Business Incubator, and the State of Louisiana Department of Minority Affairs.*
- D. Participate in associations which assist in promoting minority and women owned businesses such as the Central Louisiana Business League, the Central Louisiana Business Incubator, and the Entrepreneurial League System.*
- E. Designate a responsible official to monitor all activity made in the effort to achieve or exceed the established goals; record contacts made, subcontracts entered into with dollar amounts, and other relevant information.*

Should you have any questions or comments, please do not hesitate to contact our Finance Department at 318-449-5091 or our Purchasing Department at 318-441-6180.

Sincerely,

City of Alexandria

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS

SCOPE: The following bid specifications are to be used as minimum and maximum standards for Spun Pre-Stressed Wood Pole Equivalent Concrete Poles for use by The City of Alexandria Electric Distribution Department. All quoted products shall either meet or exceed the following specifications.

Unless otherwise stated, the use of manufacturer's name and product numbers are for descriptive purposes and to establish general quality levels only, they are not intended to be restrictive.

Prospective bidders are required to state exactly what they intend to furnish, otherwise, it is fully understood that they shall furnish all items as stated. Bidder should indicate in the space provided below, under "*Bidder's Response*:", the necessary information to indicate he/she is conforming with the bid specifications for each item as written. If Bidder is in complete compliance with each bid specification item as written, please write "Comply" in the space provided; if not, please indicate in this space, the necessary information on the product you are proposing. Each specification response is necessary to ensure the proper evaluation and tabulation of this bid. If each "*Bidder's Response*" section is not filled in or completed, your bid may be rejected.

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Bidder's Response:

1.0 Scope

1.1 This specification covers the minimum requirements for the design, materials, testing, fabrication, handling, packaging, and quality control of pre-stressed concrete utility poles designed as a wood pole equivalent.

1.2 The manufacturer shall have a minimum of 15 years of experience in the design, testing, and manufacturing of pre-stressed spun concrete poles.

2.0 Applicable Specifications & Standards

2.1 All specifications, codes or documents referred to in this specification are to be considered as part of this specification. If a conflict should arise between this specification and any referenced material, this specification shall take precedence. The latest revision of the following specifications, standards and codes shall apply:

2.1.1 *National Electric Safety Code (NESC)*

2.1.2 *American Society for Testing Materials (ASTM)*

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

2.0 Applicable Specifications & Standards (Continued)

- | | | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 2.1.2.1 | ASTM C150 - Portland Cement
Cement Specifications. | _____ |
| 2.1.2.2 | ASTM C172 - Method of Sampling
Fresh Concrete. | _____ |
| 2.1.2.3 | ASTM C33 - Concrete Aggregate
Specification. | _____ |
| 2.1.2.4 | ASTM A416 - Pre-stressing Strand
Specification. | _____ |
| 2.1.2.5 | ASTM A421 - Pre-stressing Wire
Specification. | _____ |
| 2.1.2.6 | ASTM A615 - Pre-stressing Strand
Specification. | _____ |
| 2.1.2.7 | ASTM A82 - Spiral Wire Reinforcing
Specification. | _____ |
| 2.1.2.8 | ASTM C1089-88 - Standard
Specification for Spun Concrete Poles. | _____ |
| 2.1.2.9 | ASTM C94 - Admixtures Specification. | _____ |
| 2.1.3 | <i>American Welding Society (AWS)</i> | _____ |
| 2.1.3.1 | AWS D12.1 - "Recommended Procedures
for Welding Reinforcing Steel, Metal Inserts
and Connections in Reinforced Concrete
Construction." | _____ |
| 2.1.3.2 | AWS D1.1 - Code for Welding in Building
Materials. | _____ |
| 2.1.3.3 | AWS D1.4 - Code for Qualification for
Welders. | _____ |

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

	Bidder's Response:
2.0 <u>Applicable Specifications & Standards (Continued)</u>	
2.1.4 <i>American Concrete Institute (ACI)</i>	_____
2.1.4.1 ACI 318 - "Building Code Requirements for Reinforced Concrete."	_____
2.1.4.2 ACI 315 - "Manual of Standard Practice for Detailing Reinforced Concrete Structures."	_____
2.1.4.3 ACI 347 - "Recommended Practice for Concrete Framework."	_____
2.1.4.4 ACI 503.4-79 - Standard Specifications for Repairing Concrete with Epoxy Mortars.	_____
2.1.5 <i>Prestressed Concrete Institute (PCI)</i>	_____
2.1.5.1 MNL 116 - "Manual for Quality Control for Plants and Production of Precast Prestressed Concrete Products."	_____
2.1.5.2 "Guide for Design of Prestressed Concrete Poles"; <i>Prestressed Concrete Institute</i> , November/December 1997, PCI Journal, Vol.42 no.6.	_____
2.1.5.3 "Guide for the Design and Use of Concrete Poles"; ASCE, April 1987.	_____
3.0 <u>Design</u>	
3.1 All poles shall be designed by the ultimate strength method. Poles shall be spun pre-stressed concrete (round poles).	_____
3.2 All design theories shall be accepted by industry as good engineering practices.	_____

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

3.0 Design (Continued)

3.3 All poles shall be capable of withstanding the loading conditions as required per the Purchaser's loading tree or equivalency standard, with allowances for deflection, handling, transportation and erection.

3.4 All poles shall be designed to have a three-fourth ($\frac{3}{4}$) inch minimum concrete covering over the longitudinal reinforcing steel and a five-eighth ($\frac{5}{8}$) inch minimum covering over the spiral reinforcing steel.

3.5 All multi-section pole connections shall be flanged or tube-splice connected. All alternate connection methods shall be pre-approved by the City of Alexandria Electric Distribution Department.

3.6 The following design calculations and data shall be submitted with this bid for each pole type (i.e. height, and class, etc.) and shall include the following information:

3.6.1 The controlling loads and loading case.

3.6.2 General dimensions of the pole.

3.6.3 Number, size, grade strength and location of all pre-stressing strands.

3.6.4 Size, grade, strength and location of all spiral reinforcing strands.

3.6.5 Twenty-eight (28) day compressive strength of concrete used.

3.6.6 Ultimate moment, cracking moment, maximum

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

3.0 Design (Continued)

stress of all reinforcing bars and pre-stressing strands, and the neutral axis in each ten (10) foot section of the pole at the attached points and at the ground line.

3.6.7 Maximum and normal deflection for the controlling and each load case.

3.6.8 Guy tensions with overload factors.

3.6.9 Maximum stresses of all bracing and crossarms.

3.7 Once a Purchase Order has been issued, the successful bidder must supply, for approval, detailed fabrication drawings, as well as, all pertinent information included in section 3.6 of this specification, to the City of Alexandria Electric Distribution Department for approval.

3.8 Fabrication of poles shall **not** begin until the successful bidder has been notified that the City of Alexandria Electric Distribution Department has approved all materials.

3.9 The ground line shall be located at ten percent (10%) of the overall length plus two (2) feet from the butt of the pole.

3.10 Poles shall be designed for the following NESC design loads applied at two (2) feet from the top:

<u>Pole Class</u>	<u>NESC Design Load (Lbs)</u>
*H10	11,250
*H9	10,125
*H8	9,063
*H7	8,063
H6	7,125
H5	6,250

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

3.0 Design (Continued)

H4	5,438	_____
H3	4,688	_____
H2	4,000	_____
H1	3,375	_____
2	2,313	_____
3	1,875	_____

*Loading for Classes H7 - H10 are extrapolated.

3.11 Poles shall be designed per pole class, not to crack under a load of forty percent (40%) of the loads shown in Section 3.10 applied two (2) feet from the tip. _____

3.12 Poles shall be designed per pole class to limit horizontal deflection at the pole tip to two percent (2%) of the pole height above ground when a load of thirty-six percent (36%) of the load shown in Section 3.10 is applied two (2) feet from the tip. _____

3.13 The NESC equivalent ultimate loadings as specified in Section 3.10 are considered equivalent to an ANSI wood pole class as defined by the *American National Standards Specifications and Dimensions* for wood poles when it can resist an ultimate (working load times overload capacity factor) transverse load equal to 0.625 (2.5/4.0) times the ultimate transverse load that can be resisted by a wood pole. _____

3.14 All pole grounds shall be external ground wires connected with ground wire down leads. Manufacturer shall supply ground wire clips on three (3) foot spacing for the first and last eight (8) feet above ground line. Down leads in between shall be on five (5) foot spacing. _____

3.15 Poles seventy-five (75) feet and shorter will be framed according to Drawing DG-3 (attached); poles eighty (80) feet and taller will usually be framed for transmission work, Drawings TP-138HP or TP-138PP (attached). _____

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

4.0 Materials

4.1 Concrete:

4.1.1 All concrete material shall conform to ACI 318.

4.1.2 Portland cement shall conform to ASTM C150.

4.1.3 Ready-mix concrete shall conform to ASTM C94.

4.1.4 Aggregates shall conform to ASTM C33. Sand shall be clean and natural. Course aggregate shall be crushed stone, clean, tough and well graded.

4.1.5 Water used in mixing shall be free of any foreign materials that may be harmful to concrete or steel.

4.1.6 Chemical admixtures shall conform to ASTM C494.

4.1.7 Concrete shall have a minimum, twenty-eight (28) day, design strength of 10,500 psi.

4.2 Reinforcing Steel:

4.2.1 Prestressed reinforcing strands shall conform to ASTM A416.

4.2.2 Pre-stressing steel shall be one-half (1/2) inch in diameter. Pre-stressing steel stress limits shall not exceed sixty percent (60%) of ultimate strength.

4.2.3 Spiral reinforcing strands shall conform to ASTM A82.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

4.0 Materials (Continued)

4.2.4 Spiral reinforcing strands shall be three-sixteenth (3/16) inch in diameter, with minimum yield strength of 60,000 psi.

4.2.5 Welding of spiral reinforcing strands is prohibited.

4.3 Inserts and Caps:

4.3.1 Inserts shall be galvanized steel or an approved equal.

4.3.2 All clips shall be galvanized steel.

4.3.3 All inserts must be clean and free of any foreign matter or inappropriate fittings prior to shipment.

4.4 Grout:

4.4.1 Grout shall conform to PCI Journal JR257.

5.0 Fabrication

5.1 The poles shall have a smooth finish free of all projections, depressions, cracks, and irregularities to the satisfaction of the City of Alexandria Electric Distribution's representative.

5.2 The tensioning of the prestressed tendons shall be monitored for every pole, as prescribed in MNL-116 (referenced in Section 2).

5.3 The detentioning operation shall be performed in a manner to keep the prestressed forces symmetrical about the longitudinal axis. The prestressed tendons shall be burned back a minimum of three-fourths (¾) inch into the wall of the pole at both the tip (except where approved alternates such as galvanized steel or

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

5.0 Fabrication (Continued)

plastic tip caps are used in lieu of Portland grout plugs/caps) and the butt. The end of each de-bonded tendon shall then be covered with one-half (1/2) inch of a movement absorbing material before sealing with epoxy. Strand ends at each flange connection shall be sealed to prevent corrosion.

5.4 Spiral reinforcement shall be provided for the entire length of the pole. The ratio of the volume of spiral steel to the volume of concrete shall not be less than 0.1 percent (0.1%). The spacing of the spiral steel shall not be greater than four (4) inches or the radius of the pole, whichever is less.

5.5 Holes shall be provided as specified by the City of Alexandria Electric Distribution's loading and/or pole drilling drawing. All holes are through the pole and schedule 40 PVC may be used as inserts for all holes. All through holes must be clean and free of any foreign matter prior to shipment. Two (2) vent holes shall be installed in each pole (poles greater than or equal to sixty (60) feet only). One (1) vent hole shall be located five (5) to ten (10) feet below the tip, and the other hole shall be located approximately five (5) feet above the ground line. These holes shall be two (2) inch diameter with appropriately vented covers approved by the City of Alexandria Electric Distribution Department. Vent holes shall be used for venting only.

5.6 Inserts for climbing step bolts, pole ground wire, and working steps shall be located as specified by the City of Alexandria Electric Distribution Department. The horizontal distance between step bolts shall be a maximum arc distance of twenty-four (24) inches or 90°,

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

5.0 Fabrication (Continued)

whichever is smaller. The anchorage of the inserts in the concrete shall be such that they do not pull loose under the following loads:

5.6.1 Ground Wire Down Lead - Two Hundred Fifty (250) pounds tension.

5.6.2 Stepbolt Inserts - Five Hundred (500) ft.-lbs. bending moment.

5.7 Once a pole has been removed from the spinner, the pole shall not be placed back on the spinner. No "Cold Pours" shall be allowed.

5.8 All exposed metal attachments furnished with the poles shall be corrosion resistant.

5.9 Repairs to the pole:

5.9.1 Patching with epoxy grout per ACI 503.4-79 is permitted if the structural adequacy, long term durability, and the appearance of the product are not impaired. All sharp edges, including those resulting from the mold seams, shall be buffed smooth.

5.9.2 All seam leaks and surface voids shall be checked using water. If the voids will not hold water or if the depth of the void is greater than one-eighth (1/8) inch, the pole shall be considered unsuitable unless the vendor can repair the defect to the satisfaction of the City of Alexandria Electric Distribution Department.

5.9.3 Repair inserts for step bolts shall have the same thread pattern as the cast-in inserts.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

5.0 Fabrication (Continued)

5.9.4 If steel coverage does not meet Section 3.4 above, at the tip or the butt, these areas may be filled solid with concrete for up to five (5) feet or two (2) feet, respectively. If the minimum steel coverage is not met within five (5) feet of the tip or two (2) feet of the butt, the pole shall be considered unsuitable for use.

5.9.5 All crooked or bent PVC through hole pipe shall be replaced at no expense to the City of Alexandria Electric Distribution Department.

5.10 The butt end of the pole shall be sealed with a one (1) foot thick concrete plug, with a two (2) inch drain hole. The tip end of the pole shall also be sealed with a six (6) inch plug or to the first through hole, whichever is less. Tip plugs will not be required when approved alternate tip caps are installed (i.e. galvanized steel or plastic caps).

5.11 The successful bidder must take care to furnish material within acceptable limits and shapes that are fabricated to the sizes specified. Minimum deviations from design requirements must be observed because of strength, appearance and electrical clearance requirements. Tolerance from the physical parameters shown on the drawings shall be as follows:

5.11.1 Length: $\pm 0' - 2''$ of the required length as specified by the approved drawings.

5.11.2 Diameter: \pm five percent (5%) with a maximum allowable variation of one-fourth ($\frac{1}{4}$) inch.

5.11.3 Sweep: One-quarter ($\frac{1}{4}$) inch per ten (10) feet of length and shall be in one plane and in only one direction.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

5.0 Fabrication (Continued)

5.11.4 Bolt Hole Spacing: One-eighth (1/8) inch for holes within a group and plus or minus one (1) inch for the locating axis of the group.

5.11.5 Longitudinal Reinforcement Placement: ± one-eighth (1/8) inch for the centroid of a group.

5.11.6 Spiral Reinforcement Placement: ± twenty-five percent (25%) with total required quantity per foot of pole length maintained.

5.11.7 End Squareness: ± one-half (1/2) inch per foot of end diameter.

5.11.8 Pole Weight: ± ten percent (10%) of the design weight.

5.11.9 Circumferential Tolerance: Five degrees (5°) or one-half (1/2) the hole diameter, whichever is greater.

6.0 Markings

6.1 All poles shall be clearly identified with an identification plate fabricated from a non-corrosive, non-staining metal such as bronze, brass or aluminum. The plate shall be aligned horizontally and vertically and shall have suitable anchors welded to the back to permit permanent bond to the pole. The plate shall be attached to the face of the pole four feet six inches (4'-6") above the ground line on

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

6.0 Markings (Continued)

the base section and two (2) feet above the butt end of the top section if applicable.

6.2 The following information shall be stamped into the identification plate with letters not less than one-eighth (1/8) inch high:

6.2.1 Name of manufacturer;

6.2.2 **ALEX;**

6.2.3 Date of manufacture;

6.2.4 Pole class and ground line moment;

6.2.5 Length of pole;

6.2.6 Pole weight;

6.2.7 Fabrication number;

6.2.8 Structure number (if applicable).

6.3 The two-point pickup location for handling the pole shall be clearly marked on all poles by tape or other approved means. The pick point for setting shall also be clearly marked on all poles by tape or other approved means.

6.4 The poles shall be marked where it is safe to drill from top of pole to 10' down the pole.

7.0 Quality Control & Testing

7.1 The successful bidder shall, at any time deemed appropriate by the City of Alexandria Electric Distribution Department, supply a written statement describing the Quality Control Program currently implemented.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

7.0 Quality Control & Testing (Continued)

7.2 The City of Alexandria Electric Distribution Department shall maintain the right to perform partial or complete inspections of the successful bidders facility. The successful bidder shall advise the City of Alexandria Electric Distribution Department one (1) week in advance of fabrication of the City's order so that the inspection can be made.

7.3 Certified copies of test reports for the structural members, concrete strength and other materials shall be supplied by the successful bidder to the City of Alexandria Electric Distribution Department upon request. Documentation of the average concrete strength and standard deviation shall be based on a minimum of one-hundred (100) samples of the latest consecutive days production. The standard deviation for the last two-hundred (200) samples shall not be greater than 700 psi.

7.4 All manufacturing and testing conducted by the successful bidder shall be in compliance with the applicable provisions of *Prestressed Concrete Institute MNL-116, Manual for quality Control for Plants and Production of Precast Concrete Products*.

7.4.1 Tests for compressive strength of concrete shall be per ASTM C39.

7.5 Full Scale Testing: The successful bidder shall have on site provisions to test a sample pole selected at random from a production run. The City of Alexandria Electric Distribution Department may, at any time, require the successful bidder to conduct such a test to

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

7.0 Quality Control & Testing (Continued)

demonstrate that the pole performs in accordance with design parameters. The City shall pay for the tested pole; **the cost of the test shall be covered in the bidder's bid.** Before such a test is to be conducted, the successful bidder shall supply to the City, for approval, a report containing but not limited to the following:

7.5.1 Description of test, including magnitude and location of applied loads and calculated deflection at critical points;

7.5.2 Drawings including the location and method that loads are to be applied for each loading case.

7.6 All flange connections shall be shop fitted and pre-assembled after fabrication of pole to insure proper fit and alignment.

8.0 Delivery

8.1 The method, date and location of pole delivery shall be stated in the City of Alexandria Electric Distribution's purchase order.

8.2 Poles shall not be shipped until the concrete has reached its full design strength as specified in Section 4.1 above. Poles may be shipped earlier if approved by the City of Alexandria Electric Distribution Department.

8.3 The pole delivery schedule shall be at the discretion of the City of Alexandria Electric Distribution Department.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

BID SPECIFICATIONS (Continued)

Bidder's Response:

8.0 Delivery (Continued)

8.4 At time of delivery, the successful bidder shall furnish all necessary drawings and instructions in order to place and assemble the structure.

8.5 The City of Alexandria considers reasonable delivery to be ten (10) weeks or less.

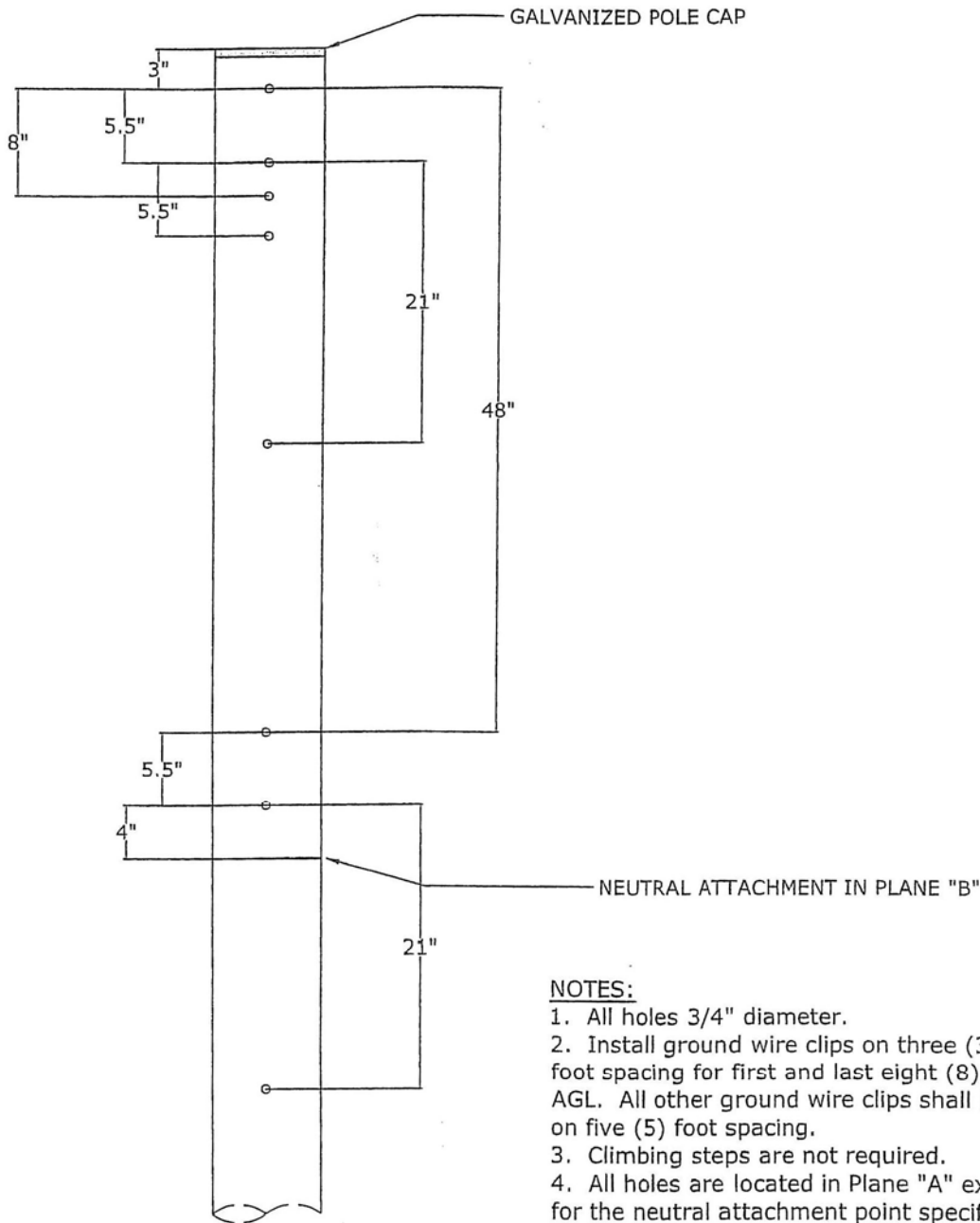
9.0 Award

9.1 **Determination of Award:** Award will be based on price and reasonable delivery. The City has defined reasonable delivery in Section 8.5.

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES

Drawing DG-3

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
 SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

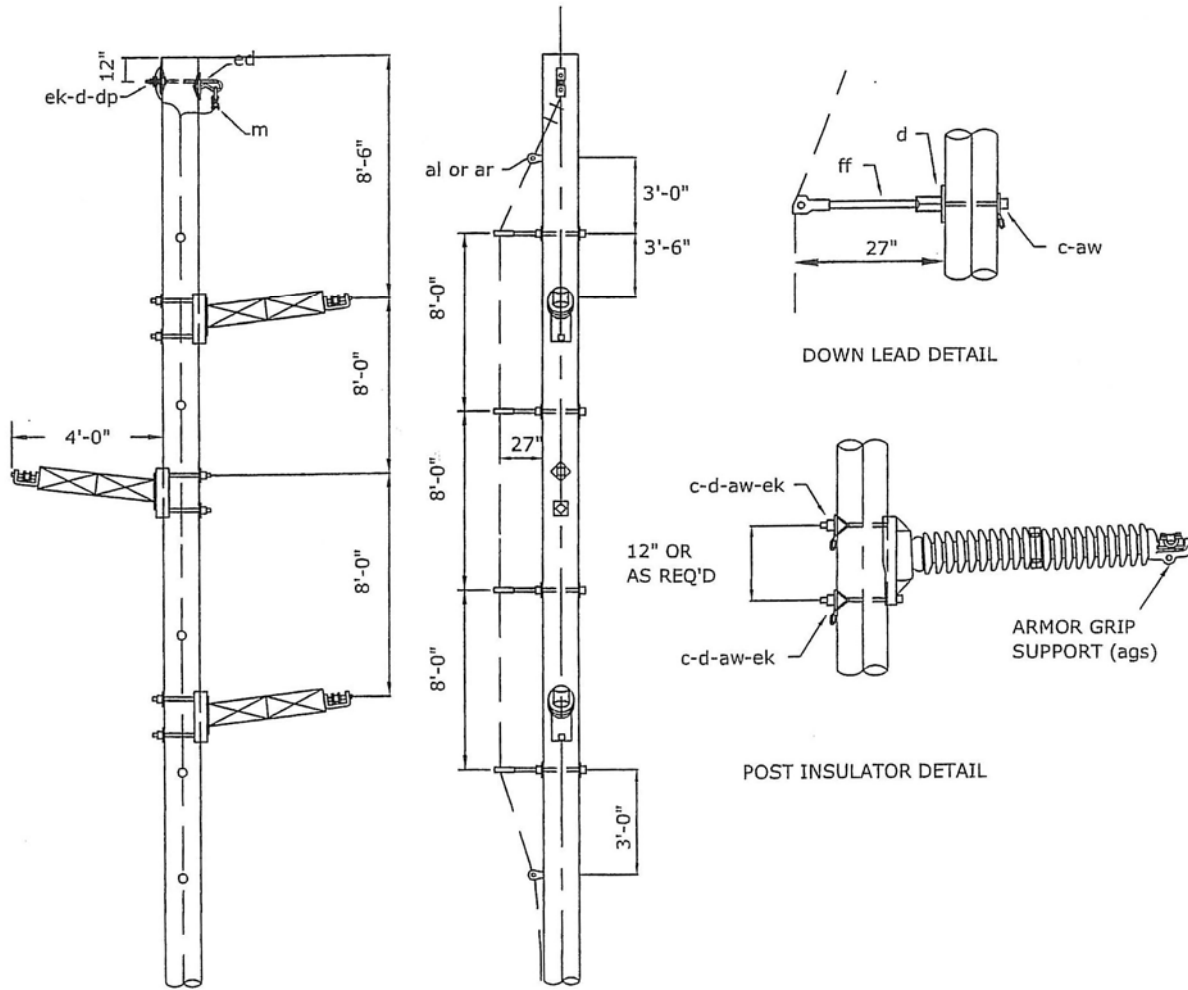


NOTES:

1. All holes 3/4" diameter.
2. Install ground wire clips on three (3) foot spacing for first and last eight (8) feet AGL. All other ground wire clips shall be on five (5) foot spacing.
3. Climbing steps are not required.
4. All holes are located in Plane "A" except for the neutral attachment point specified in the drawings to be in Plane "B". Planes A and B shall be 90° apart.
5. Up to four (4) additional holes may be spec'ed before manufacture.

<p>City of Alexandria Electric Distribution</p>	<p>CONCRETE POLE DRILLING GUIDE SHIELDED OR UNSHIELDED DISTRIBUTION</p>	<p>DATE: 02-23-06 STANDARD NUMBER DG-3</p>
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**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
 SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

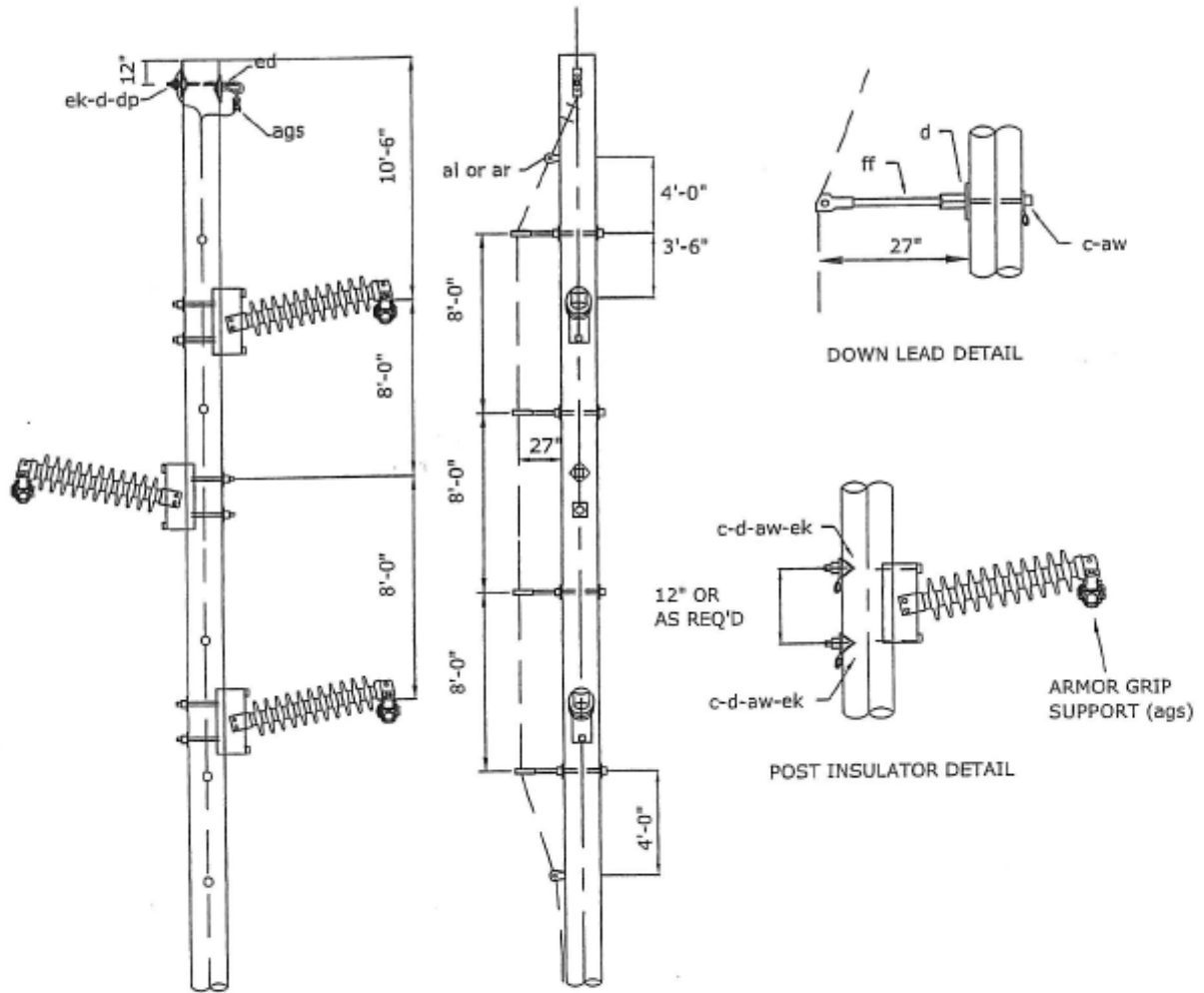


NOTE:
 FOR MAINTENANCE PROJECTS, TRANSFER EXISTING LINE POST INSULATORS AND REPLACE ALL OTHER HARDWARE WITH NEW MATERIALS PER CITY OF ALEXANDRIA SPECIFICATIONS.

<p>City of Alexandria Electric Distribution</p>	<p>138KV TRANSMISSION LINE HORIZONTAL PORCELAIN LINE POST TANGENT STRUCTURE</p>	<p>DATE: 03-03-05 STANDARD NUMBER TP-138HP</p>
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**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
 SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

drawing Tp-138PP



NOTE:
 FOR MAINTENANCE PROJECTS, TRANSFER EXISTING LINE POST INSULATORS AND REPLACE ALL OTHER HARDWARE WITH NEW MATERIALS PER CITY OF ALEXANDRIA SPECIFICATIONS.

<p>City of Alexandria Electric Distribution</p>	<p>138KV TRANSMISSION LINE HORIZONTAL POLYMER LINE POST TANGENT STRUCTURE</p>	<p>DATE: 01-31-05 STANDARD NUMBER TP-138PP</p>
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**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES**

PRICE QUOTATION SHEET B – TWELVE (12) MONTH PERIOD – QUANTITIES AS NEEDED

Height (ft.)	Wood Pole Equiv. Class	Groundline Moment	Designed Load (2' From Top)	Weight (#'s)	Diameter Tip/Butt	Unit Price (Delivered)	Estimate Quantity	Delivery Lead Time (ARO)
30	5						5	
35	3						5	
40	3						5	
40	1						5	
45	3						3	
45	1						2	
50	2						5	
50	H9						2	
50	H10						2	
55	2						2	
55	H9						1	
55	H10						1	
60	2						1	
60	H9						1	
60	H10						1	
65	2						1	
65	H9						1	
65	H10						1	
70	2						1	
75	2						1	
80	1						1	
85	1						1	
90	1						1	
95	1						1	
100	1						1	
100	H4						1	

TOTAL –TWELVE 12 MONTH PERIOD - \$ _____

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES

PRICE QUOTATION SHEET (Continued)

Full truck load weight: _____ lbs.

Additional charge, if any, for shipments less than a full load: \$_____

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SPUN PRE-STRESSED POLE EQUIVALENT CONCRETE POLES

Bidder Information:

Company Name: _____

Address: _____

City/State/Zip: _____

Telephone #: (_____) _____ Fax #: (_____) _____

Email _____

Authorized Printed Name and Title: _____

Authorized Signature: _____

(Per LA R.S. 38:2212(A)(c)(i) - See General Conditions Item #22, Page 4 of these bid specifications.)