



SANDY SPRINGS™
GEORGIA

ITB 20-035 SPALDING @ DALRYMPLE/TROWBRIDGE INTERSECTION IMPROVEMENTS TS103

BID DUE DATE:

December 30, 2019, No later than 2:00 p.m.

Pre Bid Conference

December 9, 2019, 1:00 p.m.

City Hall at City Springs

Barfield Training Room- 2nd Floor

1 Galambos Way, Sandy Springs, GA 30328

Public Bid Opening: December 30, 2019, 2:00 p.m.

City Hall at City Springs

Barfield Training Room- 2nd Floor

1 Galambos Way, Sandy Springs, GA 30328

Bids shall only be accepted online through the Bonfire Portal at:

<https://sandysprings.bonfirehub.com/projects/view/21216>

Any proposal submitted in any other format (email, paper, fax, mail, etc.) will not be accepted for any reason.

General Information:

Work required under the Contract includes furnishing materials, labor, equipment, etc. for the construction of safety, operational, lighting, and landscaping improvements within the City of Sandy Springs. GDOT Standard Specifications Construction of Transportation Systems, 2013 Edition, and applicable special provisions and supplemental specifications apply to this contract.

- 1.** All communications regarding this solicitation must be with the assigned Procurement Agent, Delores Hill, purchasing@sandyspringsga.gov.
- 2.** All questions or requests for clarification must be sent via Bonfire under Message
- Opportunity

Q&A: <https://sandysprings.bonfirehub.com/projects/view/21216> Questions are due **no later than December 11, 2019, 5:00 p.m.** Questions received after this date and time may not be answered.

3. Questions and clarifications will be answered in the form of an addendum. Any addenda, schedule changes and other important information regarding the solicitation related to this solicitation will be posted on Bonfire website at <https://sandysprings.bonfirehub.com/projects/view/21216> It is the Offeror's responsibility to check the Bonfire portal for any addendum or other communications related to this solicitation.
4. The form of contract ("Model Contract") the City intends to execute with the selected contractor is included for your review.
5. The City of Sandy Springs reserves the right to reject all bids and to waive technicalities and informalities, and to make award in the best interest of the City of Sandy Springs.
6. The City of Sandy Springs is not responsible for any technical difficulties. It is highly recommended that all potential contractors submit their quotes prior to the due date of this solicitation.
7. Work required under this Contract includes furnishing materials, labor, equipment, etc. for the construction of safety, operational, lighting, and landscaping improvements within the City of Sandy Springs. GDOT Standard Specifications Construction of Transportation Systems, 2013 Edition, and applicable special provisions and supplemental specifications apply to this contract.

DEFINITIONS

SSPWD: Sandy Springs Public Works Department

GDOT: Georgia Department of Transportation

Project landscape Architect: The Sandy Springs Director of Recreation and Parks or a duly authorized representative.

ADA: Americans with Disabilities Act. The federal act that gives civil rights protections to the disabled similar to those provided to individuals based on race, color, sex, national origin, age and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services and telecommunications.

EA: Each

GAL: Gallon

LF: Lineal Feet

LS: Lump Sum

SY: Square Yard

TN: Ton

OWNER: City of Sandy Springs

Contractor: The Prime Contractor for the Construction

Project. DOL: U.S. Department of Labor

CONTRACT DOCUMENTS: Contract Agreement, General, Conditions, Appendices, Special Provisions, Technical Specifications, Drawings and Plans, Bidding Documents, Exhibits

**CITY OF SANDY SPRINGS
INVITATION TO BID #20-035
Spalding @
Dalrymple/Trowbridge
Intersection Improvements**

All bidders must comply with all general and special requirements of the bid information and instructions herein. **A Pre-Bid will be held on December 9, 2019, 1:00 pm at Sandy Springs, Ga 30328.** Deadline for questions from prospective contractors is **December 11, 2019, 5:00 p.m.** Questions received after this date and time may not be answered.

Bid packages are available on Bonfire:

<https://sandysprings.bonfirehub.com/projects/view/21216> and also may be downloaded from the DOAS website (www.doas.georgia.gov). All questions should be forwarded in writing to Delores Hill at purchasing@sandyspringsga.gov. Please refer to **ITB 20-035 SPALDING @ DALRYMPLE/TROWBRIDGE INTERSECTION IMPROVEMENTS TS103** when requesting information. The City of Sandy Springs reserves the right to reject all bids and to waive technicalities and informalities, and to make award in the best interest of the City of Sandy Springs.

The selected contractor shall be able to start work within ten (10) calendar days after the "Notice to Proceed" is issued. The time of completion for the project is **two hundred seventy (270) calendar days** from the date of the "Notice to Proceed." Section 108.08 of the State of Georgia Department of Transportation Standard Specifications Construction of Transportation Systems (current edition) shall be applied.

BID FORM
(Bidder to sign and return)

TO: PURCHASING MANAGER
CITY OF SANDY SPRINGS
SANDY SPRINGS, GEORGIA 30350

Ladies and Gentlemen:

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Bidder, proposes to enter into a Contract with the City of Sandy Springs, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

SPALDING @ DALRYMPLE/TROWBRIDGE INTERSECTION IMPROVEMENTS TS103

The Bidder has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Sandy Springs in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation Standard *Specifications, Construction of Transportation Systems* (current edition). All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

It is the intent of this Bid to include all items of construction and all Work called for in the Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid schedule for the unit prices stated.

The Bidder agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

The Bidder further proposes and agrees hereby to promptly commence the Work with adequate forces and equipment within ten (10) calendar days from receipt of Notice to Proceed and to complete all Work within **two hundred seventy (270)** calendar days from the initial Notice to Proceed.

The Bidder will be required to sign a "Notice of Intent" (NOI) as the "operator" prior to beginning construction. The Bidder shall be responsible for installing and maintaining the "Best Management Practices" (BMP's) throughout the term of the project. Upon completion and

prior to final payment the Bidder will be required to sign a “Notice of Termination (NOT) upon final approval by COSS.

Attached hereto is an executed Bid Bond (bond only: certified checks or other forms are not acceptable)) _____ in the amount of _____ Dollars (\$ Five Percent of Amount Bid).

If this bid shall be accepted by the City of Sandy Springs and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, and give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of carriage of the insurance required within ten days from the date of Notice of Award of the Contract, then the City of Sandy Springs may, at its option, determine that the undersigned abandoned the Contract and there upon this bid shall be null and void, and the sum stipulated in the attached Bid Bond or certified check shall be forfeited to the City of Sandy Springs as liquidated damages.

Bidder acknowledges receipt of the following addenda:

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____
_____	_____

Bidder further declares that the full name and resident address of Bidder's Principal is as follows: Signed, sealed, and dated this _____ day of _____

Bidder _____
Company Name

Seal

:

By: _____

Title: _____

By: _____

Title: _____

BIDDING INSTRUCTIONS

Failure to submit the following bid documents shall result in the bid being deemed non-responsive and the bid shall be rejected:

City Bid Form and Addenda Acknowledgment Insurance Requirements
City Bid Bond Form
City Qualification Signature and Certification Form City Corporate Certificate
Project will be constructed under a single prime contract Affidavit Verifying Status for City Public Benefit Application

In addition, upon award of contract the following items shall also be submitted with the bid:

City Performance Bond Form
City Payment Bond Form
Georgia Security Immigration Compliance Act Affidavit
Certificate of Insurance

BONDING REQUIREMENTS

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Sandy Springs.

Said bid bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project.

Bonding shall be in the following amounts:

Bond Type	Amount
Payment Bond	One hundred percent (100%) of the contract
Performance Bond	One hundred percent (100%) of the contract

The Successful Bidder shall also be required to furnish a Maintenance Bond guaranteeing the repair or replacement caused by defective workmanship or materials for a period of one (1) year from the completion of construction.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.



SANDY SPRINGS™
GEORGIA

CONTRACT AGREEMENT

For

("Project")

Between

CITY OF SANDY SPRINGS, GEORGIA
("City")

and

("Contractor")

ITB # 20-035

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CONTRACT AGREEMENT

This Agreement is made by and between the City of Sandy Springs, a political subdivision of the State of Georgia (hereinafter referred to as the City) and [REDACTED], (hereinafter referred to as the Contractor) under seal for construction of the **Spalding @ Dalrymple/Trowbridge Intersection Improvements TS103** (hereinafter referred to as the Project);

WHEREAS, the Contractor desires to enter into this Agreement for construction of the Project and has represented to the City that it is qualified (**meaning a Prequalified Prime Contractor listed by the Georgia Department of Transportation, Office of Contract Administration**) and experienced to provide such services necessary for construction of the Project (the City requires that the Contractor comply with all federal, state and local legal requirements imposed on the Project as the result of federal funding and the City has relied on such representation);

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, it is agreed by and between the Contractor and the City as follows:

ARTICLE I

THE CONTRACT AND THE CONTRACT DOCUMENTS

1.1 The Contract

1.1.1 The Contract between the City and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2 The Contract Documents

1.2.1 The Contract Documents consist of this Agreement, General Conditions, Special Provisions, the Technical Specifications, the Drawings and Plans, Bidding Documents, all Change Orders and Field Orders issued hereafter, the base bid made by the Contractor in response to the City's Invitation for Bid No. _____ (the "Bid"), and any other amendments hereto executed by the parties hereafter, together with the following (if any):

Documents not enumerated in this Paragraph 1.2 are not Contract Documents and do not form a part of this Contract.

1.3 Entire Agreement

1.3.1 The Contract Documents constitute the entire and exclusive agreement between the City and the Contractor with reference to the Project.

1.4 Subletting, Assignment, or Transfer

1.4.1 It is understood by the parties to this Agreement that the Work of the Contractor is considered personal by the City. The Contractor agrees not to assign, sublet, or transfer any or all of its interest in this Agreement without prior written approval of the City.

1.4.2 The City reserves the right to review all subcontracts prepared in connection with the Agreement, and the Contractor agrees that it shall submit to the City proposed subcontract documents together with Subcontractor cost estimates for the City's review and written concurrence in advance of their execution.

1.4.3 All subcontracts in the amount of \$10,000.00 or more shall include the provisions set forth in this Agreement.

1.5 No Privity with Others

1.5.1 Nothing contained in this Contract shall create, or be interpreted to create, privity or any other contractual agreement between the City and any person or entity other than the Contractor.

1.6 Intent and Interpretation

1.6.1 The intent of this Contract is to require complete, correct and timely execution of the Work. Any Work that may be required, implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price, as hereinafter defined.

1.6.2 This Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.6.3 When a word, term or phrase is used in this Contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.

1.6.4 The words include, includes, or including, as used in this Contract, shall be deemed to be followed by the phrase, without limitation.

1.6.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act,

failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this Contract.

1.6.6 Words or terms used as nouns in this Contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.6.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the shop drawings and the product data and shall give written notice to the City of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance or the express or implied approval by the City of the Contract Documents, shop drawings or product data shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor's compliance with this Contract. HOWEVER, THE CITY MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING THE DOCUMENTS FOR THE PROJECT, INCLUDING THE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT. By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representation or warranties by the City concerning such documents as no such representation or warranties have been or are hereby made.

1.6.8 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the design, shall control the Contractor in dividing the Work or in establishing the extent or scope of the Work to be performed by Subcontractors.

1.7 Ownership of Contract Documents

1.7.1 The Contractor may be provided, have access to or become aware of the City's Confidential Information including the City's strategic plans, employee data, customer data and other technical and business information of the City (collectively referred to as the "Confidential Information"). The term Confidential Information includes the deliverables as well as all information generated by the Contractor that contains, references or is derived from the Confidential Information and the Services including, without limitation, the Contractor's summaries, analysis, extracts, calendar papers and notes relating to the Services and the Deliverables (referred to as the "Working Papers"). The Contractor agrees not to disclose the Confidential Information to third parties without the prior written approval of the City and not to make use of the Confidential Information other than as needed to perform the Services. The Contractor further agrees that it will only disclose the Confidential Information to its personnel on a need-to-know basis solely for the performance of the Services and will protect the Confidential Information with the same degree of care that the Contractor uses to protect its own confidential information, but no less than reasonable care or as the various laws may require or impose.

All Confidential Information as well as other documents, data and information provided to the Contractor by the City is and will remain the property of the City to the extent that it was the property

of the City at the time it was provided to the Contractor.

All Confidential Information shall be returned to the City by the Contractor within five (5) business days of the completion of the Services under this Contract. The Contractor will keep no copies of the Confidential Information except that the Contractor may retain one copy of the Calendar Papers as required by law, regulation, professional standards or reasonable business practice. If requested by the City, an officer of the Contractor will certify in writing that, to the best of his/her knowledge, information and belief, all Confidential Information and all copies thereof (except for one copy of the Calendar Papers) have been delivered to the City or destroyed.

The Contract Documents, and each of them, shall remain the property of the City. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without the City's prior written authorization.

1.8 Hierarchy of Contract Documents

1.8.1 In the event of any conflict, discrepancy, or inconsistency among any of the Contract Documents, the following hierarchy shall control: (a) as between figures given on drawings and the scaled measurements, the figures shall govern; (b) as between large scale drawings and small scale drawings, the large scale shall govern; (c) as between drawings and specifications, the requirements of the specifications shall govern; (d) as between the Contract Agreement and General and the specifications, the requirements of the Contract Agreement shall govern. As set forth hereinabove, any and all conflicts, discrepancies, or inconsistencies shall be immediately reported to the City in writing by the Contractor.

ARTICLE II

THE WORK

2.1 Contractor Responsibility

2.1.1 The Contractor shall perform all of the Work required, implied or reasonably inferable from, this Contract.

2.2 “Work” Defined

2.2.1 The term Work shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Contract, including the following: construction of the whole or a designated part of the Project; furnishing of any required surety bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Contract. The Work to be performed by the Contractor is generally described in Exhibit A, SCOPE OF SERVICES, attached hereto and incorporated herein.

2.3 Review of Work

2.3.1 Authorized representatives of the City, GDOT, and affected federal agencies may at all reasonable times review and inspect the activities and data collected under the terms of the Contract and any amendments thereto, including but not limited to, all reports, drawings, studies, specifications, estimates, maps, and computations, prepared by or for the City.

2.4 Workday and Restrictions, Suspension and Interruption

2.4.1 Normal workday for the Work shall be from 8:00 A.M. to 5:00 P.M. and the normal work week shall be Monday through Friday. The City will consider extended workdays or work weeks upon written request on a case-by-case basis. The City may restrict work hours in certain locations or at certain times of the day. No work will be allowed on national holidays (i.e., Memorial Day, July 4th, Labor Day, etc.). The City may order the Contractor in writing to suspend, delay or interrupt all or any part of the Work for such period of time as it may determine appropriate for the convenience of the City. The time for completion of the Work shall be extended by the number of days the Work is suspended. The City shall not be responsible for any claims, damages or costs stemming from any delay of the Project.

2.5 Work to be performed by the Prime Contract

2.5.1 Tasks constituting of at least fifty-one percent (51%) of the value of this contract must be performed directly by the prime contractor and shall not be sub-contracted to other firms.

2.5.2 The Contractor shall identify which tasks shall be self-performed.

ARTICLE III

CONTRACT TIME

3.1 Time and Liquidated Damages

3.1.1 The Contractor shall not proceed to furnish such services and the City shall not become obligated to pay for same until a written authorization to proceed (“Notice to Proceed”) has been sent

to the Contractor from the City. The Contractor shall commence the Work no later than ten (10) days after the effective date of the Notice to Proceed and shall achieve Substantial Completion of the Work, as hereinafter defined, no later than **two hundred seventy (270) calendar days**, in accordance with the Contract Documents. **Two hundred seventy (270) calendar days** from the date on which the Work is permitted to proceed, through the date set forth for Substantial Completion, shall constitute the Contract Time. The Work shall be carried on expeditiously, it being understood, however, that this Agreement may be extended or continued in force by the parties hereto in writing as provided herein.

3.1.2 The Contractor shall pay the City the sum of \$500.00 per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that Substantial Completion will be inexcusably delayed, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

3.2 Substantial Completion

3.2.1 Substantial Completion shall mean the stage of the work when Sandy Springs has determined all pay items are sufficiently complete allowing the newly constructed facilities to be used for their intended purpose. Partial use or occupancy of the Project shall not result in the Project being deemed substantially complete, and such partial use or occupancy shall not be evidence of Substantial Completion.

3.3 Time is of the Essence

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Contract.

ARTICLE IV

CONTRACT PRICE

4.1 The Contract Price

4.1.1 The total contract amount for the Project (the "Contract Price") shall be as set forth in the bid schedule ("Bid Schedule") attached hereto as EXHIBIT B, BID SCHEDULE and incorporated herein. The total contract amount shall be certified by the Bid Price Certification ("Bid Price Certification") attached hereto as EXHIBIT C, BID PRICE CERTIFICATION and incorporated herein. Payment to the Contractor pursuant to the Bid Schedule is full payment for the complete scope of services. The Contract Price shall not be modified except by Change Order as provided in this Contract.

ARTICLE V

PAYMENT OF THE CONTRACT PRICE

5.1 Bid Schedule

5.1.1 The Contractor shall invoice and be paid pursuant to the Bid Schedule contained in the Contract Documents.

5.2 Payment Procedure

5.2.1 The City shall pay the Contract Price to the Contractor as provided below.

5.2.2 Based upon the Contractor's invoices for payment submitted to the City, the City shall make progress payments to the Contractor on account of the Contract Price.

5.2.3 On or before the 5th day of each month after commencement of the Work, the Contractor shall submit an invoice for Work satisfactorily completed as evaluated by an inspector representing the City pursuant to the Bid Schedule. The invoice shall be in such form and manner, and with such supporting data and content, as the City may require. Therein, the Contractor may request payment for ninety percent (90%) of that portion of the Contract Price properly allocable to Contract requirements properly provided, labor, materials and equipment properly incorporated into the Work plus ninety percent (90%) of that portion of the Contract Price properly allocable to materials or equipment properly stored on-site (or elsewhere if approved in advance in writing by the City) for subsequent incorporation into the Work, less the total amount of previous payments received from the City. Payment for stored materials and equipment shall be conditioned upon the Contractor's proof satisfactory to the City, that the City has title to such materials and equipment and shall include proof of required insurance. Such invoice shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested in accordance with the Schedule of Work, that the Work has been properly installed or performed in full accordance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the City will review the invoice and may also review the Work at the Project Site or elsewhere to determine whether the quantity and quality of the Work is as represented in the invoice and is as required by this Contract. The City shall make partial payments on account of the Contract Price to the Contractor within thirty (30) days following receipt of each invoice. The amount of each partial payment shall be the amount approved for payment less such amounts, if any, otherwise owing by the Contractor to the City or which the City shall have the right to withhold as authorized by this Contract. The City shall not be precluded from the exercise of any of its rights as set forth in Paragraph 5.3 herein below; PROVIDED, HOWEVER, that when fifty (50) percent of the Contract value, including Change Orders and other additions to the Contract value, provided for by the Contract Documents is due, and the manner of completion of the Contract Work and its progress are reasonably satisfactory to the City, the City shall withhold no more retainage. At the discretion of the City, and with the approval of the Contractor, the retainage of any Subcontractor may be released separately as the Subcontractor completes its Work. If, however, after discontinuing the retention, the City determines that the Work is unsatisfactory or has fallen behind schedule,

retention may be resumed at the previous level. If retention is resumed by the City, the Contractor and Subcontractors shall be entitled to resume withholding retainage accordingly. The rights of the City set forth herein to retainage are in addition to all of the other rights and remedies of the City set forth in this Agreement.

5.2.4 The Contractor warrants that upon submittal of an invoice, all Work for which payments have been received from the City shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.5 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the City becomes informed that the Contractor has not paid a Subcontractor as herein provided, the City shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the City, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the City to repeat the procedure in the future.

5.2.6 No progress payment, nor any use or occupancy of the Project by the City, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Contract.

5.3 Withheld Payment

5.3.1 The City may decline to make payment, may withhold funds, and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the City from loss because of:

- (a) defective Work not remedied by the Contractor or, in the opinion of the City, unlikely to be remedied by the Contractor;
- (b) claims of third parties against the City or the City's property;
- (c) failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion;
- (d) evidence that the balance of the Work cannot be completed in accordance with the Contract for the unpaid balance of the Contract Price;
- (e) evidence that the Work will not be completed in the time required for substantial or final completion;
- (f) persistent failure to carry out the Work in accordance with the Contract;
- (g) damage to the City or a third party to whom the City is, or may be, liable.

In the event that the City makes written demand upon the Contractor for amounts previously paid by the City as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

5.4 Punch List

5.4.1 When the Contractor believes that the Work is substantially complete, the Contractor shall so notify the City in writing. If the City deems the work is substantially complete, the City shall make a preliminary final inspection of the Project and shall submit to the Contractor a list of items to be completed or corrected (the "Punch List"). The Contractor shall complete all items on the Punch List within twenty-one (21) calendar days from the date of issuance of the Punch List by the City. If the Contractor is already in liquidated damages, as herein provided, prior to beginning the Punch List, then liquidated damages will be postponed for the twenty-one (21) calendar days. Once the twenty-one (21) calendar days expire, then liquidated damages will continue to accrue. In any case, once the twenty-one (21) calendar days expire after the Punch List is submitted to the Contractor, then liquidated damages will be assessed.

5.5 Completion and Final Payment

5.5.1 When all of the Work is finally complete and the Contractor is ready for a final inspection, the Contractor shall notify the City thereof in writing. Thereupon, the City will make final inspection of the Work and, if the Work is complete in full accordance with this Contract and this Contract has been fully performed, the Contractor is entitled to the remainder of the unpaid Contract Price as hereinafter provided in Subparagraph 5.5.3. Guarantees required by the Contract shall commence on the date of final completion of the Work.

5.5.1.1 If the Contractor fails to achieve final completion within the time fixed therefor by the City, the Contractor shall pay the City the sum of \$ 500.00 (as stipulated in GDOT Standard Specifications 108.08) per day for each and every calendar day of unexcused delay in achieving final completion beyond the date set forth herein for final completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that final completion will be delayed without excuse, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.5.2 The Contractor shall not be entitled to final payment unless and until it submits to the City all documents required by the Contract, including, but not limited to, its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the City, or the City's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of lien from all Subcontractors of the Contractor and of any and all other parties required

by the City; consent of Surety, if any, to final payment. If any third party fails or refuses to provide a release of claim or waiver of lien as required by the City, the Contractor shall furnish a bond satisfactory to the City to discharge any such lien or indemnify the City from liability.

5.5.3 Upon a determination by an inspector representing the City that the Work is complete in full accordance with this Contract, the City shall pay the Contractor an amount sufficient to increase total payments to the Contractor to one hundred percent (100%) of the Contract Price less two hundred percent (200%) of the reasonable cost as determined by the City for completing all incomplete Work, correcting and bringing into conformance all defective and nonconforming Work, and handling all unsettled claims.

The City shall make final payment of all sums due the Contractor within thirty (30) days of final completion of the Project as determined by an inspector representing the City.

5.5.4 Acceptance of final payment shall constitute a waiver of all claims against the City by the Contractor except for those claims previously made in writing against the City by the Contractor, pending at the time of final payment, and identified in writing by the Contractor as unsettled at the time of its request for final payment.

ARTICLE VI

THE CITY

6.1 City Responsibility

6.1.1 Excluding permits and fees normally the responsibility of the Contractor, the City shall obtain all approvals, easements, and the like required for construction and shall pay for necessary assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

6.2 Right to Stop Work

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Contract, the City may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected no longer exists, or the City orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

6.3 City's Right to Carry Out Work

6.3.1 If the City determines to order the Contractor to stop the Work under the provisions of Paragraph 6.2, the City shall provide notice to the Contractor and the Contractor's surety under the performance bond that they have seven (7) days to provide adequate assurance to the City that the cause of such stoppage will be eliminated or corrected and provide the City with a plan to remedy the cause of such Work stoppage. If the Contractor and the surety fail within seven (7) days of such Work stoppage to provide such assurance, then the City may, without prejudice to any other rights or

remedies the City may have against the Contractor, proceed to carry out the remedies necessary to eliminate or correct the cause of such Work stoppage. Upon proceeding to perform or cause to be performed any corrective actions, the City shall provide notice to the Contractor and the surety of action being taken by the City. In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies. If the unpaid portion of the Contract Price is insufficient to cover the amount due the City, the Contractor and the surety shall be responsible for paying the difference to the City.

ARTICLE VII

THE CONTRACTOR

7.1 Duties with Respect to Documents

7.1.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.6.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved shop drawings, product data or samples for such portion of the Work. If the Contractor performs any of the Work knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the City, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 Manner of Performance

7.2.1 The Contractor shall perform the Work strictly in accordance with this Contract.

7.3 Supervision

7.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The Contractor shall be responsible to the City for any and all acts or omissions of the Contractor, its employees and others engaged in the Work on behalf of the Contractor.

7.4 Compliance

7.4.1 Equal Employment Opportunity

During performance of this Agreement, Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender, national origin, age, disability, or military or veteran status, or any other status or classification protected by applicable federal, state and local laws. This practice shall apply to all terms and conditions of employment, including but not limited to, hiring, placement, promotion, termination, layoff, recall, transfer, leave of absence, compensation, and training.

Contractor shall undertake equal employment opportunity efforts to ensure that applicants and employees are treated without regard to their race, color, religion, sex, sexual orientation, gender, national origin, age, disability, or military or veteran status, or any other status or classification

protected by applicable federal, state and local laws. Contractor's equal employment opportunity efforts shall include, but not be limited to, all terms and conditions of employment, including but not limited to, hiring, placement, promotion, termination, layoff, recall, transfer, leave of absence, compensation, and training.

Contractor will, in all solicitations or advertisements for employees placed by, or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to their race, color, religion, sex, sexual orientation, gender, national origin, age, disability, or military or veteran status, or any other status or classification protected by applicable federal, state and local laws.

Contractor will cause the foregoing provisions to be inserted in all subcontracts for any work covered by the Agreement so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

7.4.2 The Contractor's performance of the Work shall comply with all federal and state legal requirements imposed on GDOT including specifically, but not limited to, the provisions governing GDOT's authority to contract, Sections 32-2-60 through 32-2-77 of the Official Code of Georgia Annotated; GDOT's Rules and Regulations Governing the Prequalification of Prospective Bidders, Chapter 672-5; and GDOT's Standard Specifications, Construction of Transportation Systems (current edition), and Special Provisions modifying them, except as noted in the General Conditions to the Contract including in the Contract Documents. The Contractor shall require all subcontracts for construction of the Project to incorporate the requirements of this Subparagraph.

7.4.3 The Contractor shall comply with and shall require its Subcontractors to comply with the regulations for compliance with Title VI of the Civil Rights Act of 1964, as amended, and 23 CFR 200, as stated in EXHIBIT D, NOTICE TO CONTRACTORS - COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, attached hereto and incorporated herein.

7.4.4 The Contractor shall certify that the provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated relating to the "Drug-Free Workplace Act" have been complied with in full, in the form attached hereto as EXHIBIT E, CERTIFICATION OF SPONSOR - DRUG-FREE WORKPLACE, and incorporated herein.

7.4.5 The Contractor shall execute a certification and shall cause all Subcontractors to execute a certification in the form of EXHIBIT F, CERTIFICATION OF CONTRACTOR – GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT, attached hereto and incorporated herein. Pursuant to the certification, Contractor agrees to comply with all applicable requirements of the Georgia Security and Immigration Compliance Act of 2006 as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>.

7.4.6 The Contractor shall comply with and shall require its Subcontractors to comply with Section

25-9-1, et seq. of the Georgia Code Annotated, "Georgia Utility Facility Protection Act", CALL BEFORE YOU DIG 1-800-282-7411.

7.4.7 The Contractor shall comply with and shall cause its Subcontractors to comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330), as supplemented by Department of Labor Regulations (29 CFR Part 5).

7.4.8 The Contractor shall comply with and shall cause its Subcontractors to comply with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented in Department of Labor Regulations (29 CFR, Part 3).

7.4.9 The Contractor acknowledges and agrees that the failure to complete appropriate certifications or the submission of a false certification as required herein shall result in the termination of this Agreement as provided in Article XII herein.

7.5 Warranty

7.5.1 The Contractor warrants to the City that all labor furnished to progress the Work under this Contract will be competent to perform the tasks undertaken, that the product of such labor will yield only first-class results, that materials and equipment furnished will be of good quality and new unless otherwise permitted by this Contract, and that the Work will be of good quality, free from faults and defects and in strict conformance with this Contract. All Work not conforming to these requirements may be considered defective. Unless otherwise specified in this Contract, acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City's rights under any warranty or guarantee. The Contractor shall remedy all defects in the Work and pay for damage to the Work and/or to other City property resulting from defective Work, which shall appear within a minimum period of one (1) year from the date of acceptance of the Work under this Contract, unless a longer period is specified. The one (1) year warranty period shall begin after any repairs are performed, if needed.

7.6 Permits, Inspections, Fees and Licenses

Except as otherwise provided herein, the Contractor shall obtain and pay for all permits, inspections, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law, ordinance, or regulation pertaining to the Work.

7.7 Supervision

7.7.1 The Contractor shall employ and maintain at the Project Site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the Project Site and shall be authorized to receive and accept any and all communications from the City.

7.8 Schedules

7.8.1 The Contractor shall submit to the City on a weekly basis a Schedule of Work to be performed for the next two (2) weeks. The Schedule of Work must be delivered to the City each Thursday no later than 12:00 noon. The Contractor's Schedule of Work shall be prepared in such form, with such detail, and supported by such data as the City may require. The City reserves the right to prohibit Work on any section of the Project not included in the weekly Schedule of Work. The Schedule of Work must accurately represent the intended Work and cannot be vague or broad, such as listing all Work in the Contract. The violation of this provision by the Contractor shall constitute a material breach of this Contract. THE PARTIES SPECIFICALLY AGREE THAT ANY FLOAT CONTAINED IN THE SCHEDULES SHALL BELONG TO THE PROJECT AND IN NO EVENT SHALL THE CONTRACTOR MAKE CLAIM FOR ANY ALLEGED DELAY, ACCELERATION, OR EARLY COMPLETION SO LONG AS THE PROJECT IS COMPLETED WITHIN THE CONTRACT TIME. Strict compliance with the requirements of this Paragraph is a condition precedent for payment to the Contractor, and failure by the Contractor to strictly comply with said requirements shall constitute a material breach of this Contract.

7.9 Contract to be maintained at Project Site

The Contractor shall continuously maintain at the Project Site, for the benefit of the City, one record copy of this Contract marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the Project Site for the City the approved shop drawings, product data, samples and other similar required submittals. Upon final completion of the Work, all of these record documents shall be delivered to the City.

7.10 Shop Drawings, Product Data and Samples

7.10.1 Shop drawings, product data, samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with information received from the Contract Documents.

7.10.2 The Contractor shall not perform any portion of the Work requiring submittal and review of shop drawings, product data or samples unless and until such submittal shall have been approved by the City. Approval by the City, however, shall not be evidence that Work installed pursuant thereto conforms with the requirements of this Contract.

7.11 Cleaning the Project Site and the Project

7.11.1 The Contractor shall keep the Project Site reasonably clean during performance of the Work. Upon final completion of the Work, the Contractor shall clean the Project Site and the Project and remove all waste, together with all of the Contractor's property from the Project Site.

7.12 Access to Work

7.12.1 Access to the Work shall be given to the City, GDOT and any affected federal agency requiring

access to the Work at all times from commencement of the Work through final completion. The Contractor shall take whatever steps necessary to provide access when requested.

7.13 Indemnity

7.13.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City and GDOT, their boards, officials, directors, officers, employees, representatives, agents, and volunteers from and against all liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from performance of the Work, provided that such liability, claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

7.13.2 In claims against any person or entity indemnified under this Paragraph 7.13 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.13 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.13.3 The Contractor shall ensure that the provisions of this Paragraph 7.13 are included in all contracts and subcontracts for the performance of Work under this Agreement.

7.14 Means, Methods, Techniques, Sequences, Procedures and Safety

7.14.1 The Contractor is fully responsible for, and shall have control over, all construction means, methods, techniques, sequences, procedures and safety, and shall coordinate all portions of the Work required by the Contract Documents. The Contractor shall confine its apparatus, material and the operations of its workers to limits/requirements indicated by law, ordinances, permits, codes and any restrictions of the City, and shall not unreasonably encumber the premises with its materials or supplies.

The Contractor shall adequately protect its own property from damage, will protect the City's property from damage or loss, and will take all necessary precautions during the progress of the work to protect all persons and the property of others from injury or damage. The Contractor shall take all precautions for the safety of employees, and shall comply with all applicable provisions of Federal, State and local safety laws, building codes and any restrictions of the City to prevent accidents or injury to persons on, about, or adjacent to the premises where work is being performed.

The Contractor shall erect and properly maintain at all times as required by the conditions, service and work, all necessary safeguards for the protection of its employees, the Contractor's employees, and the public, and shall post signs warning against potential hazards.

7.15 Separate Contracts

7.15.1 The City reserves the right to perform work on the premises with its own forces or by the use of other contractors. In such event, the Contractor shall fully cooperate with the City and such other contractors and shall coordinate, schedule and manage its work so as not to hinder, delay or otherwise interfere with the separate work of the City or other contractors.

7.16 Maintenance of Contract Cost Records

7.16.1 The Contractor shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred on the Project and used in support of its Bid and shall make such material available at all reasonable times during the period of the Contract, and for three (3) years from the date of final payment under the Contract, for inspection by GDOT and any reviewing agencies, and copies thereof shall be furnished upon request. The Contractor agrees that the provisions of this Subparagraph shall be included in any agreement it may make with any Subcontractor, assignee, or transferee.

ARTICLE VIII

CONTRACT ADMINISTRATION

8.1 Claims by the Contractor

8.1.1 All Contractor claims shall be initiated by written notice and claim to the City. Such written notice and claim must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.

8.1.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Contract and the City shall continue to make payments to the Contractor in accordance with this Contract. The resolution of any claim under this Paragraph 8.1 shall be reflected by a Change Order executed by the City and the Contractor.

8.1.3 **Claims for Concealed and Unknown Conditions** -- Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Contract, or should unknown conditions of an unusual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Contract, be encountered, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the City having any liability to the Contractor for concealed or unknown conditions, the Contractor must give the City written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating to such concealed or unknown condition.

8.1.4 Claims for Additional Costs -- If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the City therefor, the Contractor shall give the City written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

8.1.4.1 In connection with any claim by the Contractor against the City for completion in excess of the Contract Price, any liability of the City shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor. The City shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefor in a court of competent jurisdiction.

8.1.5 Claims for Additional Time -- If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the City or someone acting in the City's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipatable, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the City, for such reasonable time as the City may determine. Any notice and claim for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is a continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim as required in this Subparagraph, any claim for an extension of time shall be waived.

8.1.6 Extension of Contract Time for Unusually Adverse Weather Conditions Not Reasonably Anticipated

8.1.6.1 The parties hereto recognize that work performed outside will at times be subject to adverse weather conditions. Further, the parties hereto agree that usual weather conditions include adverse weather that may impact scheduled work and that time has been factored in to the Contract Time to account for such adverse weather. Cumulative to the provisions of subparagraph 8.1.5 of this Contract Agreement, Contract Time may be extended for unusually adverse weather conditions that prevent the performance of scheduled work. For the avoidance of doubt, "scheduled work" shall only include work impacted by adverse weather that was made part of the most recent Schedule of Work submitted to and accepted by the City pursuant to subparagraph 7.8.1. For the further avoidance of doubt, "unusually adverse" shall only mean days in excess of the days factored in to the Contract Time for usual adverse weather for each month as follows: January (7 days), February (6 days), March (5 days), April (3 days), May (3 days), June (2 days), July (1 day), August (3 days), September (3 days), October (2 days), November (4 days), and December (5 days). Contract Time may not be extended for

days lost due to adverse weather conditions within these limits. In addition to the requirements set forth in Subparagraph 8.1.5, the Contractor's written notice and claim for extension of time shall include a description of the adverse weather, the nature and extent of the delay caused by such weather, official weather reports, and other supporting documentation as the City may reasonably require. To extent that any of the terms and conditions set forth in this paragraph are in conflict with any of the terms and conditions of subparagraph 8.1.5, the terms and conditions of this paragraph shall govern and control.

ARTICLE IX

SUBCONTRACTORS

9.1 Definition

9.1.1 A Subcontractor is an entity which has a direct contract with the Contractor to perform a portion of the Work.

9.2 Award of Subcontracts

9.2.1 Upon execution of the Contract, the Contractor shall furnish the City, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The City shall promptly reply to the Contractor, in writing, stating any objections the City may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the City has made timely objection. The Contractor shall not be required to subcontract with any party to whom the Contractor has objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor which correspond to those rights afforded to the City against the Contractor herein, including those rights afforded to the City by Subparagraph 12.2.1 below.

9.2.3 All subcontracts shall comply with the requirements of Paragraph 7.4 above.

9.2.4 All subcontractors including DBE firms are to be GDOT registered subcontractors or prequalified contractors.

ARTICLE X

CHANGES IN THE WORK

10.1 Changes Permitted

10.1.1 Changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Contract, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Contract and the Contractor shall proceed promptly with such changes.

10.2 Change Order Defined

10.2.1 Change Order shall mean a written order to the Contractor executed by the City, issued after execution of this Contract, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. The Contract Price and the Contract Time may be changed only by Change Order.

10.3 Changes in the Contract Price

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows by mutual agreement between the City and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3) the Contractor's execution of the Change Order.

10.3.2 If unit prices are provided in the Contract, and if the quantities contemplated are so changed in a proposed Change Order that application of such unit prices to the quantities of Work proposed will cause substantial inequity to the City or to the Contractor, the applicable unit prices shall be equitably adjusted.

10.4 Effect of Executed Change Order

10.4.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Contract as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the City for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

10.5 Notice to Surety; Consent

10.5.1 The Contractor shall notify and obtain the consent and approval of the Contractor's surety

with reference to all Change Orders if such notice, consent or approval are required by the Contractor's surety or by law. The Contractor's execution of the Change Order shall constitute the Contractor's warranty to the City that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

ARTICLE XI

UNCOVERING AND CORRECTING WORK

11.1 Uncovering Work

11.1.1 If any of the Work is covered contrary to the City's request or to any provisions of this Contract, it shall, if required by the City, be uncovered for the City's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not inconsistent with Subparagraph 11.1.1 above, it shall, if required by the City, be uncovered for the City's inspection. If such Work strictly conforms with the provisions of this Contract, costs of uncovering and proper replacement shall by Change Order be charged to the City. If such Work does not strictly conform with the provisions of this Contract, the Contractor shall pay the costs of uncovering and proper replacement.

11.2 Correcting Work

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the City as defective or failing to conform to this Contract. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the City for services and expenses made necessary thereby, if any.

11.2.2 If within one (1) year after Substantial Completion of the Work any of the Work is found to be defective or not in accordance with this Contract, the Contractor shall correct it promptly upon receipt of written notice from the City. This obligation shall survive final payment by the City and termination of this Contract. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and final completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations which the Contractor has under this Contract. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work.

11.3 City May Accept Defective or Nonconforming Work

11.3.1 If the City chooses to accept defective or nonconforming Work, the City may do so. In such event, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project as constructed and the fair market value of the Project had it not been constructed in such a manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the City for its acceptance of defective or nonconforming Work, the Contractor shall, upon written demand from the City, pay the City such remaining compensation for accepting defective or nonconforming Work.

ARTICLE XII

CONTRACT TERMINATION

12.1 Termination by the Contractor

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or other public authority, or as a result of an act of the government, through no fault of the Contractor or any person or entity calendar directly or indirectly for the Contractor, the Contractor may, upon ten (10) days' written notice to the City, terminate performance under this Contract and recover from the City payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the City shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate hereunder, the Contractor may terminate performance under this Contract by written notice to the City. In such event, the Contractor shall be entitled to recover from the City as though the City had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 12.2.1 hereunder.

12.2 Termination by the City

12.2.1 For Convenience

12.2.1.1 The City may for any reason whatsoever terminate performance under this Contract by the Contractor for convenience. The City shall give written notice of such termination to the Contractor specifying when termination becomes effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the City or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the City such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

12.2.1.4

- (a) The Contractor shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Contractor an amount derived in accordance with sub-paragraph (c) below.
- (b) The City and the Contractor may agree to the compensation, if any, due to the Contractor hereunder.
- (c) Absent agreement to the amount due to the Contractor, the City shall pay the Contractor the following amounts:
 - (i) Contract prices for labor, materials, equipment and other services accepted under this Contract;
 - (ii) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the Work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;
 - (iii) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

12.2.2 For Cause

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to prosecute the Work in a timely manner, supply enough properly skilled workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having

jurisdiction, or otherwise is guilty of a substantial violation of a material provision of this Contract, then the City may by written notice to the Contractor and the surety, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the Project Site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may proceed to carry out the remedies necessary to finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price exceeds the cost of finishing the Work, including compensation for additional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the City for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

ARTICLE XIII

INSURANCE

13.1 Insurance Requirements

13.1.1 Prior to beginning Work on the Project, the Contractor shall procure and maintain for the duration of this Contract, and for one (1) years thereafter, at its sole cost and expense such insurance as will fully protect it and the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers from incidents, accidents and claims for personal injury, bodily injury, and property damage which may arise from or in connection with the performance of the work and for the Contractor's professional liability (errors and omissions) under this Contract, whether such services and work are performed by the Contractor, its agents, representatives, employees, or by any subcontractor or any tier directly employed or retained by either. The following is the minimum insurance and limits that the Contractor must maintain. If the Contractor maintains higher limits than the minimums shown below, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

All of the insurance herein specified shall be written on a form acceptable to the City and shall be A.M. Best Company rated A X or greater. See EXHIBIT G, INSURANCE REQUIREMENTS attached hereto and incorporated herein.

13.1.2 All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given

notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

13.1.3 If the City has any objections to the coverage afforded by or provisions of the insurance required to be purchased and maintained by the Contractor, the City will notify the Contractor thereof within twenty (20) days of the date of delivery of such certificates to the City.

13.1.4 The Contractor shall provide to the City such additional information in respect of insurance provided by it as the City may reasonably request. The right of the City to review and comment on certificates of insurance is not intended to relieve the Contractor of his responsibility to provide insurance coverage as specified nor to relieve the Contractor of his liability for any claims which might arise.

13.1.5 The Contractor agrees to require its Subcontractors to obtain insurance complying with the requirements the requirements of the Contract Documents.

ARTICLE XIV

DISPUTES

No civil action with respect to any dispute, claim or controversy arising out of or relating to this Contract may be commenced without first giving fourteen (14) calendar days written notice to Sandy Springs of the claim and the intent to initiate a civil action.

ARTICLE XV

INDEPENDENT CONTRACTOR

15.1 Relationship between Contractor and City

15.1.1 The Contractor shall perform the services under this Agreement as an independent contractor and nothing contained herein shall be construed to be inconsistent with such relationship or status. Nothing in this Agreement shall be interpreted or construed to constitute the Contractor or any of its agents or employees to be the agent, employee or representative of the City. Inasmuch as the City and the Contractor are contractors independent of one another, neither has the authority to bind the other to any third person or otherwise to act in any way as the representative of the other, unless otherwise expressly agreed to in writing signed by both parties hereto. The Contractor agrees not to represent itself as the City's agent for any purpose to any party or to allow any employee or agent of the Contractor to do so, without specific prior written authorization from the City, and then only for the limited purpose stated in such authorization.

15.1.2 The Contractor shall assume full liability for any contracts or agreements that the Contractor enters into on behalf of the City without the express knowledge and prior written authorization of the City.

ARTICLE XVI

COVENANT AGAINST CONTINGENT FEES

16.1 Warranty by Contractor

16.1.1 Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for any fee, commission, percentage, brokerage or contingent fee, gift or other consideration, excepting bona fide employees maintained by Contractor for the purpose of securing business and that Contractor has not received any non-City fee related to this Agreement without the prior written consent of the City.

16.1.2 For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or at its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of any such fee, commission, percentage, brokerage or contingent fee, gift

or other consideration.

ARTICLE XVII

MISCELLANEOUS

17.1 Governing Law

17.1.1 The Contract shall be administered and interpreted under the laws of the State of Georgia. Jurisdiction of litigation arising from this Agreement shall be in Georgia. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of this Agreement shall be in full force and effect.

Whenever reference is made in the Agreement to standards or codes in accordance with which work is to be performed, the edition or revision of the standards or codes current on the effective date of this Agreement shall apply, unless otherwise expressly stated.

17.2 Successors and Assigns

17.2.1 The City and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the City.

17.3 Surety Bonds

17.3.1 The Contractor shall furnish separate performance and payment bonds to the City. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by the Contractor shall be in form suitable to the City and shall be executed by a surety, or sureties, reasonably suitable to the City. Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570, as amended) and be authorized to do business in the State of Georgia. The date of the bond must not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the bond.

It is mutually agreed by the parties hereto that if at any time after execution of this Agreement and the surety bonds for its faithful performance, the City shall deem the surety or sureties upon such bonds to be unsatisfactory, or if for any reason such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at its expense, within five (5) days after receipt of notice from the City to do so, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the City. In such event, no further payment to the Contractor shall be deemed due under this Agreement until such new or additional security for the

faithful performance of the Work shall be furnished in manner and form satisfactory to the City.

17.4 Notices

If to the City:

Peggy Merriss, Interim City Manager
1 Galambos Way
Sandy Springs, Georgia 30328

With copies to:

Dan Lee, City Attorney
1 Galambos Way
Sandy Springs, Georgia 30328

If to Contractor:

Contractor Contact, Title
Address
City, State Zip

With copies to:

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized agents, have signed and sealed this Agreement.

CITY OF SANDY SPRINGS, GEORGIA

By: _____
Peggy Merriss, Interim City Manager

Date of Execution

ATTEST:

By: _____
City Clerk

(SEAL)

Approved as to Form:

By: _____
City Attorney

CONTRACTOR

Date of Execution

By: _____
Name:

(Typed or printed name)

Title

ATTEST:

By: _____
Secretary for Corporation

(SEAL)

Witness

Executed in originals of one (1).

**EXHIBIT A
TO CONTRACT AGREEMENT**

SCOPE OF SERVICES

The Contractor shall provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the City of Sandy Springs Project **TS103, Spalding Dr. at Dalrymple-Trowbridge Intersection Improvements**, to upgrade the signalized intersection. This work includes the addition of lanes, upgraded signalization, sidewalks, and associated improvements per the approved construction plans.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition) – **SEE ALSO EXHIBIT H, “SPECIAL PROVISIONS”, PROVIDED WITH “REQUESTED FOR BID” DOCUMENTS.** All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only or as directed by the Engineer.

Any contract quantities above the plan quantities will be placed as directed by Engineer. Any quantities paid for under the “miscellaneous construction” pay item will be placed as directed by Engineer and the contractor will provide a quote for review by the Engineer prior to execution of work.

There is no City furnished equipment to be installed by the contractor.

**EXHIBIT B
TO CONTRACT AGREEMENT
BID SCHEDULE**

**EXHIBIT C
TO CONTRACT AGREEMENT**

BID PRICE CERTIFICATION

In compliance with the attached Specification, the undersigned offers and agrees that if this Bid is accepted, by the City Council within one hundred and twenty (120) days of the date of Bid opening, that he will furnish any or all of the Items upon which Prices are quoted, at the Price set opposite each Item, delivered to the designated point(s) within the time specified in the Bid Schedule.

TOTAL BID PRICE: _____

TOTAL BID PRICE IN WORDS: _____

COMPANY: _____

ADDRESS: _____

AUTHORIZED SIGNATURE: _____

EMAIL ADDRESS: _____

PRINT / TYPE NAME: _____

**EXHIBIT D
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

During the performance of this Contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. **Compliance with Regulations:** The Contractor will comply with the Regulations of the Department of Transportation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of the Contract.
2. **Nondiscrimination:** The Contractor, with regard to the work performed by it afterward and prior to completion of the contract work, will not discriminate on the ground of race, color, sex, or national origin in the selection and retention of subcontracts including procurements of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when contract covers a program set forth in Appendix B of the Regulations. In addition, the Contractor will not participate either directly or indirectly in discrimination prohibited by 23 CFR 710.405 (b).
3. **Solicitations for subcontracts, including procurements of materials and equipment:** In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the ground of race, color, national origin or sex.
 4. **Information and Reports:** The Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the

Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Department of Transportation shall impose such Contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the Contractors under the Contract until the Contractor complies, and/or
 - (b) Cancellation, termination or suspension of the Contract, in whole or in part.
6. Incorporation of Provisions: The Contractor will include the provisions of paragraph (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, orders or instruction issued pursuant thereto. The Contractor will take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as result of such direction, the Contractor may request the State to enter into such litigation to protect the interests of the State, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

**EXHIBIT E
TO CONTRACT AGREEMENT**

**CERTIFICATION OF SPONSOR
DRUG-FREE WORKPLACE**

I hereby certify that I am a principal and duly authorized representative of _____, (“Contractor”), whose address is _____, _____, _____, and I further certify that:

- (1) The provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the “Drug-Free Workplace Act” have been complied with in full; and
- (2) A drug-free workplace will be provided for Contractor’s employees during the performance of the Agreement; and
- (3) Each Subcontractor hired by Contractor shall be required to ensure that the subcontractor’s employees are provided a drug-free workplace. Contractor shall secure from that subcontractor the following written certification: “As part of the subcontracting agreement with Contractor, _____ certifies to Contractor that a drug-free workplace will be provided for the Subcontractor’s employees during the performance of this Agreement pursuant to paragraph (7) of subsection (b) of the Official Code of Georgia Annotated, Section 50-24-3”; and
- (4) The undersigned will not engage in unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the Agreement.

CONTRACTOR:

Date: _____

Signature: _____

Title: _____

**EXHIBIT F
TO CONTRACT AGREEMENT**

**CERTIFICATION OF CONTRACTOR
GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT**

I hereby certify that I am a principal and duly authorized representative of _____, ("Contractor"), whose address is _____.

Contractor hereby agrees to comply with all applicable provisions and requirements of the Georgia Security and Immigration Compliance Act of 2006 (the "Act"), as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>, as further set forth below.

Contractor agrees to verify the work eligibility of all of newly hired employees through the U.S. Department of Homeland Security's *Employment Eligibility Verification (EEV) / Basic Pilot Program*, accessed through the Internet at <https://www.vis-dhs.com/EmployerRegistration>, in accordance with the provisions and timeline found in O.C.G.A. 13-10-91 and Rule 300-10-1-.02 of the Rules and Regulations of the State of Georgia. As of July 1, 2007, the verification requirement applies to contractors and subcontractors with five-hundred (500) or more employees.

Contractor understands that the contractor and subcontractor requirements of the Act apply to contracts for, or in connection with, the physical performance of services within the State of Georgia.

Contractor understands that the following contract compliance dates set forth in the Act apply to the Contract Agreement, pursuant to O.C.G.A. 13-10-91:

On or after July 1, 2007, to public employers, contractors, or subcontractors of 500 or more employees;

On or after July 1, 2008, to public employers, contractors, or subcontractors of 100 or more employees; and

On or after July 1, 2009, to all other public employers, their contractors, and subcontractors.

To document the date on which the Act is applicable to Contractor, and to document Contractor's compliance with the Act, the undersigned agrees to initial one of the three (3) lines below

indicating the employee number category applicable to Contractor, and to submit the indicated affidavit with the Contract Agreement if the Contractor has 500 or more employees.

Contractor has:

- _____ 500 or more employees [Contractor must register with the *Employment/Eligibility Verification/Basic Pilot Program* and begin work eligibility verification on July 1, 2007];
- _____ 100-499 employees [Contractor must register with the *Employment Eligibility Verification/Basic Pilot Program* and begin work eligibility verification by July 1, 2008]; or
- _____ 99 or fewer employees [Contractor must begin work eligibility verification by July 1, 2009].

Contractor further agrees to require O.C.G.A. Sections 13-10-90 and 13-10-91 compliance in all written agreements with any subcontractor employed by Contractor to provide services connected with the Contract Agreement, as required pursuant to O.C.G.A. 13-10-91.

Contractor agrees to obtain from any subcontractor that is employed by Contractor to provide services connected with the Contract Agreement, the subcontractor's indication of the employee number category applicable to the subcontractor.

Contractor agrees to secure from any subcontractor engaged to perform services under this Contract an executed "Subcontractor Affidavit," as required pursuant to O.C.G.A. 13-10-91 and Rule 300-10-1-.08 of the Rules and Regulations of the State of Georgia, which rule can be accessed at <http://www.dol.state.ga.us>.

Contractor agrees to maintain all records of the subcontractor's compliance with O.C.G.A. Sections 13-10-90 and 13-10-91 and Chapter 300-10-1 of the Rules and Regulations of the State of Georgia.

CONTRACTOR:

Date: _____

Signature: _____

Title: _____

**EXHIBIT G
TO CONTRACT AGREEMENT**

INSURANCE REQUIREMENTS

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy, but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage

under this policy continues for a period of thirty-six (36) months after completion of services.

7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

Certificate Holder should read: The City of Sandy Springs, 1 Galambos Way, Sandy Springs, Georgia 30328.

**EXHIBIT H
TO CONTRACT AGREEMENT
SPECIAL PROVISIONS**

CITY OF SANDY SPRINGS SPECIAL PROVISIONS

All special provisions listed on this page apply to this project, Spalding Drive at Dalrymple/Trowbridge Roads. See the following pages for the special provisions:

Section 108—Prosecution and Progress

Section 150—Traffic Control (includes 150.11 SP)

Section 615—Jack or Boring Pipe

Section 637—Illuminated Sign System

Section 639—Strain Poles for Overhead Sign and Signal Assemblies

Section 700—Grassing

Section 890—Seed and Sod

Section 913—Reflectorizing Materials

Section 925—Traffic Signal Equipment

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

108 - Prosecution and Progress

A. Liquidated Damages

The amount of such charges is hereby agreed upon as fixed liquidated damages due the Department after the expiration of the time for completion specified in the Contract. The Contractor and his Surety shall be liable for liquidated damages in excess of the amount due the Contractor on the final payment.

These fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the Department and the Contractor due the uncertainty and impossibility of making a determination as to the actual and consequential damages which are incurred by the Department, the State, and the general public as a result of the failure on the part of the Contractor to complete The Work on time.

3. **Deduction From Partial Payments:** Liquidated damages, as they accrue, will be deducted from periodic partial payments.
4. **Deduction From Final Payment:** The full amount of liquidated damages will be deducted from final payment to the Contractor and/or his Surety.
5. **No Liquidated Damages Charged for Delay by the Department:** In case of default of the Contract and the subsequent completion of The Work by the Department as hereinafter provided, the Contractor and his Surety shall be liable for the liquidated damages under the Contract, but no liquidated damages shall be chargeable for any delay in the final completion of The Work by the Department due to any unreasonable action, negligence, omission, or delay of the Department. In any suit for the collection of or involving the assessment of liquidated damages, the reasonableness of the amount shall be presumed. The liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under the Contract.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

150.11 Special Conditions

A. WORK HOURS:

This project requires the following restricted work hours:

Lane closures is only permitted from 9:00 am to 3:00 pm and work is permitted only during weekdays (Monday through Friday) between the hours of 8:00 am to 5:00 pm.

Failure by the contractor to reopen the lane by the times specified will result in damages assessed in accordance with Section 108.08 of this contract.

B. TRAFFIC CONTROL PLAN:

A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TWO (2) WEEKS PRIOR TO ANY WORK FOR REVIEW AND APPROVAL BY THE ENGINEER. C.

HOLIDAY WORK:

No work shall be allowed during the following dates due to holidays:

July 4, 2019 – July 7, 2019 – Independence Day
August 31, 2019 – September 2, 2019 – Labor Day
October 12, 2019 – October 14, 2019 – Columbus Day Holiday
November 28, 2019 – December 1, 2019 – Thanksgiving Holiday
December 25, 2019 – Christmas
January 1, 2020 – New Years
January 18, 2020 – January 20, 2020 – Martin Luther King, Jr. Day
February 15, 2020 – February 17, 2020 – President's Day
May 23, 2020 – May 25, 2020 – Memorial Day
July 3, 2020 – July 5, 2020 – Independence Day

Lane closures shall not be allowed during the weekends of the Georgia Tax Free Weekends.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

615 – Jack or Boring Pipe

B. Boring

Proceed with the boring from a pit provided for boring equipment and workmen.
Complete these steps:

1. Excavate for pits and shoring installation as outlined above.
2. Locate the pit at the Engineer's approval.
3. Bore the holes mechanically using a pilot hole approximately 2 in. (50 mm) in diameter that is bored the entire length of the installation.
 - a. Check the pilot hole for line and grade on the opposite end of the bore from the work pit.
 - b. Use the pilot hole to serve as the center line of the larger diameter hole to be bored.
4. Place excavated material near the top of the working pit and dispose of it as required. Use water or other fluids with the boring operation to lubricate the cuttings. Do not perform jetting.
5. In unconsolidated soil formations, use a gel-forming colloidal drilling fluid with at least 10 percent of high grade carefully processed bentonite to consolidate excavated material, seal the walls of the hole, and lubricate subsequent removal of material and immediate pipe installation.
6. Ensure that the diameter of the excavation conforms to the outside diameter of the pipe as closely as possible.
7. See Subsection 615.3.05.A, "Jacking," for the allowable variation from line and grade.
8. Use an approved mix to pressure grout voids that develop during the installation operation and that the Engineer determines are detrimental to the Work.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

637 – Illuminated Sign System

A. Fees and Permits

Pay the fees and permits required by power companies or governmental agencies.

Notify the power company at least 30 days before the power source connection is needed.

B. Power Supply and Wiring

Use a power supply of 120/240 V, 3-wire, single phase, with a supply point where the Department and the serving electric utility determine, unless otherwise noted. The supply point is usually near the right-of-way line near the sign location.

The sign lighting pay Unit includes setting a wooden service pole that meets the requirements of Section 863 near the edge of the right-of-way to receive the service from the utility company, unless otherwise indicated. Use at least a 30 ft (9

m) Class 5 pole or as shown on the Plans.

1. Install the metallic service riser with a weatherhead on the service pole and a weatherproof housing containing circuit breakers of the appropriate voltage and ampere rating.
2. When specified on the Plans, install a photoelectric control with the mounting hardware near the top of the service pole and a lighting contactor in a weatherproof housing on the service pole.
3. Ensure that the circuit breaker and lighting contactor have the number of poles required to open each ungrounded conductor.

Ensure that the circuit breakers and lighting contactors have proper lugs, sized for the cable to be used. Do not cut the cable strands to attach to the circuit breakers or lighting contactors.

4. Install an approved meter base in the service riser when required by the power company or indicated on the Plans.

5. Furnish and install an approved 650 V lightning arrester at the weatherproof enclosure and connect the arrester to the grounding system.

6. Furnish an approved padlock with two keys each for locking the weatherproof housings. Key the padlocks alike if more than one padlock is required on a Project.

7. Enclose the wiring on the sign framework in rigid galvanized steel conduit. Use liquid-tight flexible conduit in transition areas between rigid members. Do not splice cable or wire except in junction boxes.

8. Splice the conductors according to the National Electric Code and the splice manufacturer's recommendations.

Splicing is subject to the Engineer's approval.

a. Make splices only in junction boxes and pole bases unless otherwise shown on the Plans.

- b. Make the straight or line splices of conductors the same size with tin-plated copper compression tubular splices.
 - c. Splice conductors of different sizes or different terminating directions by using tin-plated copper compression ring tongue terminals on each conductor. Bolt the terminals together with stainless steel or high-strength silicone bronze hardware.
9. Use lock nuts, pal nuts, or lock washers to keep the connection tight. Do not use split bolt connectors.
10. After splicing the conductor, insulate the splice with heat shrinkable tubing coated with adhesive on the inner wall supplied by the manufacturer. Select the shrink tube so that when it is applied over the connector it has an insulation thickness equal to or greater than the insulation thickness of the conductor used. Ensure that the heat shrinkable tubing is UL listed and meets ANSI C 119.1 (latest edition) requirements for submersible and direct buried splices.
11. When bolting connectors together:
- a. Wrap the bolted connection with cloth tape before applying the heat shrinkable tubing.
 - b. Pad the sharp points and edges on splices to prevent the heat shrinkable tubing from splitting during shrinking.
 - c. Position the shrink tubing so that at least 3 in (75 mm) of seal length \pm 0.05 in (\pm 13 mm) is established on each side of the splice after the tube is fully recovered.
 - d. Ensure that the spliced joints are watertight.
12. Include an approved 650 V lightning arrester inside the handhole of each structural support for illuminated signs.
13. Install in-the-line fuses in each ungrounded conductor inside the handhole of each structural support for illuminated signs.
14. Notify the power company at least 30 days before the connection to the power source is needed.

C. Power Control

The photoelectric control operates the lighting contactor that supplies power to the lighting circuit. If the supply voltage is other than 120/240 V, furnish and install a transformer in a weatherproof enclosure to provide 120 V control voltage.

- 1. Mount the circuit breaker, lighting contactor, and transformer, if required, in NEMA-3R lockable weatherproof cabinet(s) located on the service pole accessible from the ground.
- 2. Enclose the wiring to and from the photoelectric control in rigid galvanized conduit.

D. Grounding Rods

Install the grounding rods adjacent to each structural support foundation where the supply voltage enters and adjacent to the service pole.

- 1. Solidly connect to the grounding conductor the sign framework and metallic, noncurrent carrying materials in the lighting system.
- 2. Ensure that the neutral/grounding conductor is continuous and is connected to the luminaire housing, the ground rod at each structural support, and the ground rod at the service pole.

3. Drive the single ground rods vertically until the top of the rod is at least 12 in (300 mm) below the finished ground.

4. Use round rod clamps to attach a length of No. 6 AWG, bare solid, soft drawn or medium hard drawn copper ground wire to the ground rod. Connect it to the grounding point on the structural support.

If penetration cannot be obtained in the above manner:

a. Place a ground rod system consisting of 3 parallel ground rods at least 6 ft (1.8 m) center to center in a horizontal pattern and at least 12 in (300 mm) below the finished ground.

b. Join these rods and connect them to the grounding point on the structural support with No. 6 AWG, bare solid, soft drawn, or medium-hard drawn copper ground wire and ground rod clamps.

E. Conduit, Boxes, Fittings, Circuit Breakers, Fuses, Wiring, and Supports

Furnish and install the conduit, boxes, fittings, circuit breakers, fuses, wiring supports, and accessories to complete the work for each circuit as required by the National Electrical Code.

F. Fuses and Fuseholders

Construct and install the fuseholder to retain the fuse on the load side if disconnected or broken apart. Install a waterproof boot, furnished by the fuseholder manufacturer, over each end of the fuseholder.

G. Lightning Arresters

House the lightning arrester in a watertight housing. Encapsulate or seal the lead entrance into the housing.

For units that are not factory sealed, apply silicone caulk to the lead entrance and install heat shrinkable tubing with precoated sealant on the interior surface over the lead entrance.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

639 – Strain Poles for Overhead Sign and Signal Assemblies

D. Strain Poles for ATMS Applications

Provide poles for supporting CCTV, VDS, and microwave radar detection devices that meet the following design specifications:

- Designed to 80 mph AASHTO wind load requirements
- Limited to a live horizontal deflection at the top equal to or less than 1% of pole height in a 50 mph wind, with a design load of four static cameras and one movable camera.
- Torsional deflection limited to a 1 degree, maximum.

Install mounting brackets, as illustrated on the plans, which are galvanized steel and are compatible with the mounting design of the specified cameras and pan/tilt devices, and are affixed to the pole to prohibit rotation.

Install all wiring internal up to the camera mounting bracket with no external conduit on the pole.

Provide a weatherproof wiring access point or handhole on the pole.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

700 - Grassing

Delete Section 700.5.F as written and add the following:

700.5 Payment

F. SOD:

Sod will be paid by the square yard in accordance with the following schedule of payments. Payment is full compensation for ground preparation, including addition of topsoil, furnishing and installing live sod, and for Plant Establishment. Sod shall be paid when 100% in one lump sum with no incremental payments.

100% of the contract Price per square yard will be paid at the satisfactory completion of installation.

10/10/2019

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

890 – Seed and Sod

Retain Section 890 as written and add the following:

890.2.02 SPECIAL CONDITIONS

D. MATERIALS WARRANTY:

4. Sod installation shall include a 2 year warranty.

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

913 – Reflectorizing Materials

913.2.01 Type I, II, III, IV, V, VI, VII, VIII, IX, X, and XI Reflective Sheeting

A. Requirements

1. Use reflective sheeting that meets the requirements of ASTM D 4956.
2. Use reflective sheeting as listed in QPL 29.
3. Use reflective sheeting that has been evaluated by the National Transportation Product Evaluation Panel (NTPEP) test facility or other approved test facility.
4. Submit the following to the Department:
 - a. A certificate with each lot or shipment stating the following:
 - The material supplied will meet all the test requirements listed herein.
 - You have performed the specified tests to ensure compliance.
 - You will submit test results upon request.

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

1. The Engineer will reject reflective sheeting in the following situations:
 - a. The material fails to meet any on of the designated requirements.
 - b. The material meets the requirements but later fails during sign fabrication or in actual field use. Cracks, wrinkles, delamination, color change, or abnormal loss of reflectivity constitute failure.
 - c. Natural causes deteriorate the material to the extent that:
 - 1) The sign is ineffective for its intended purpose as defined in Subsection 913.2.01.C.1.b above.
 - 2) The average nighttime reflective brightness is less than 70% of the values specified in Table 1 or Table 2.

D. Materials Warranty

Transfer to the Department a performance warranty for Type I, II, III, IV, V, VI, VII, VIII, IX, X, or XI reflective sheeting issued by the manufacturer.

Ensure that the warranties cover the full replacement cost, including material and labor.

Include in these warranties a provision that the warranty is subject to a transfer to the Department.

Submit a warranty from the manufacturer that states that the reflective sheeting—processed, applied to sign blank materials, and cleaned—meets the outdoor weathering photometric requirements of ASTM D 4956.

10/10/2019

SPECIAL PROVISION
SPALDING DRIVE AT DALRYMPLE/TROWBRIDGE ROADS

City of Sandy Springs, Georgia

Modifications of the GDOT Standard Specifications, 2013 Edition

925 – Traffic Signal Equipment

B. Referenced Documents

valmont 
STRUCTURES

A l u m i n u m B a s e s
for Steel Street Lighting and Traffic Poles



CITY QUARTZ
Contemporary Architectural Style



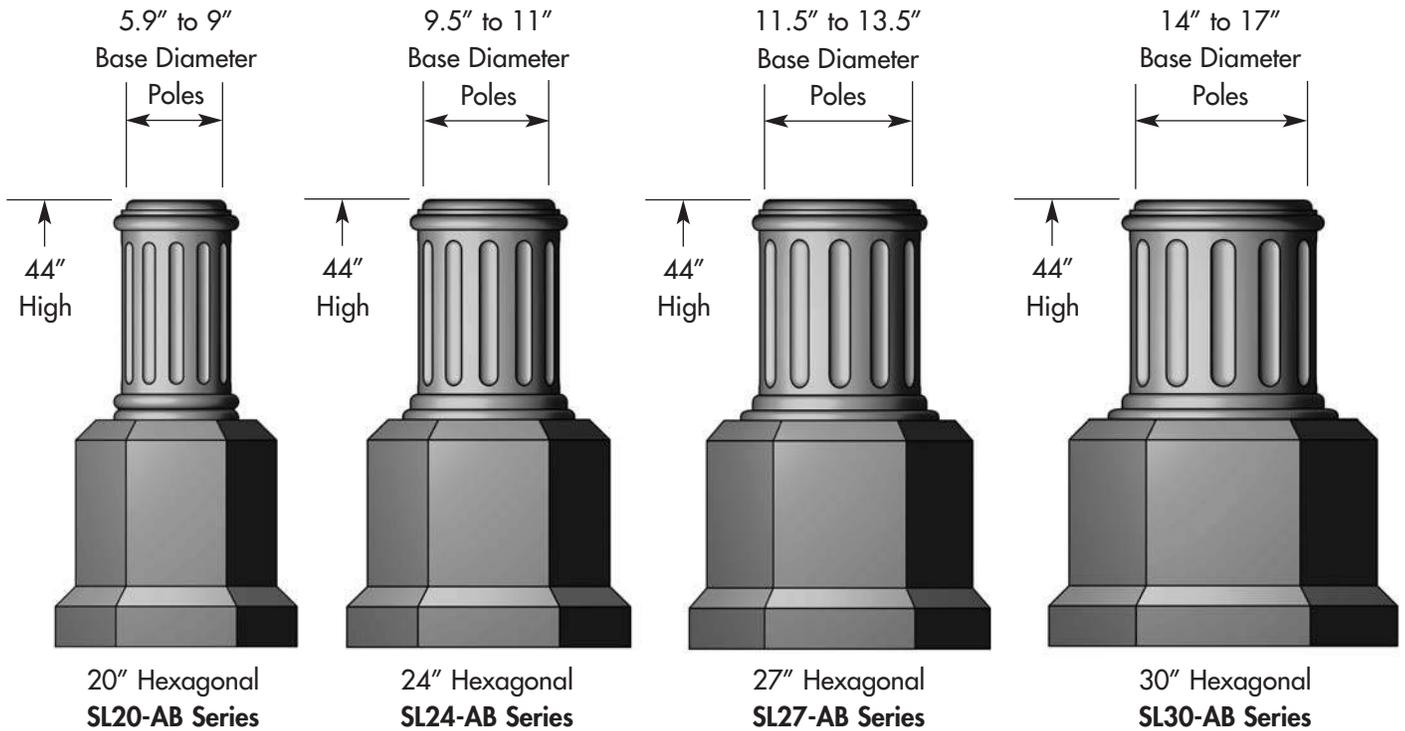


CITYQUARTZ

- Simple, clean forms work well with smooth poles.
- Attractive alternative to nostalgic designs.
- Can be installed on existing poles to improve area appearance.



Stylus

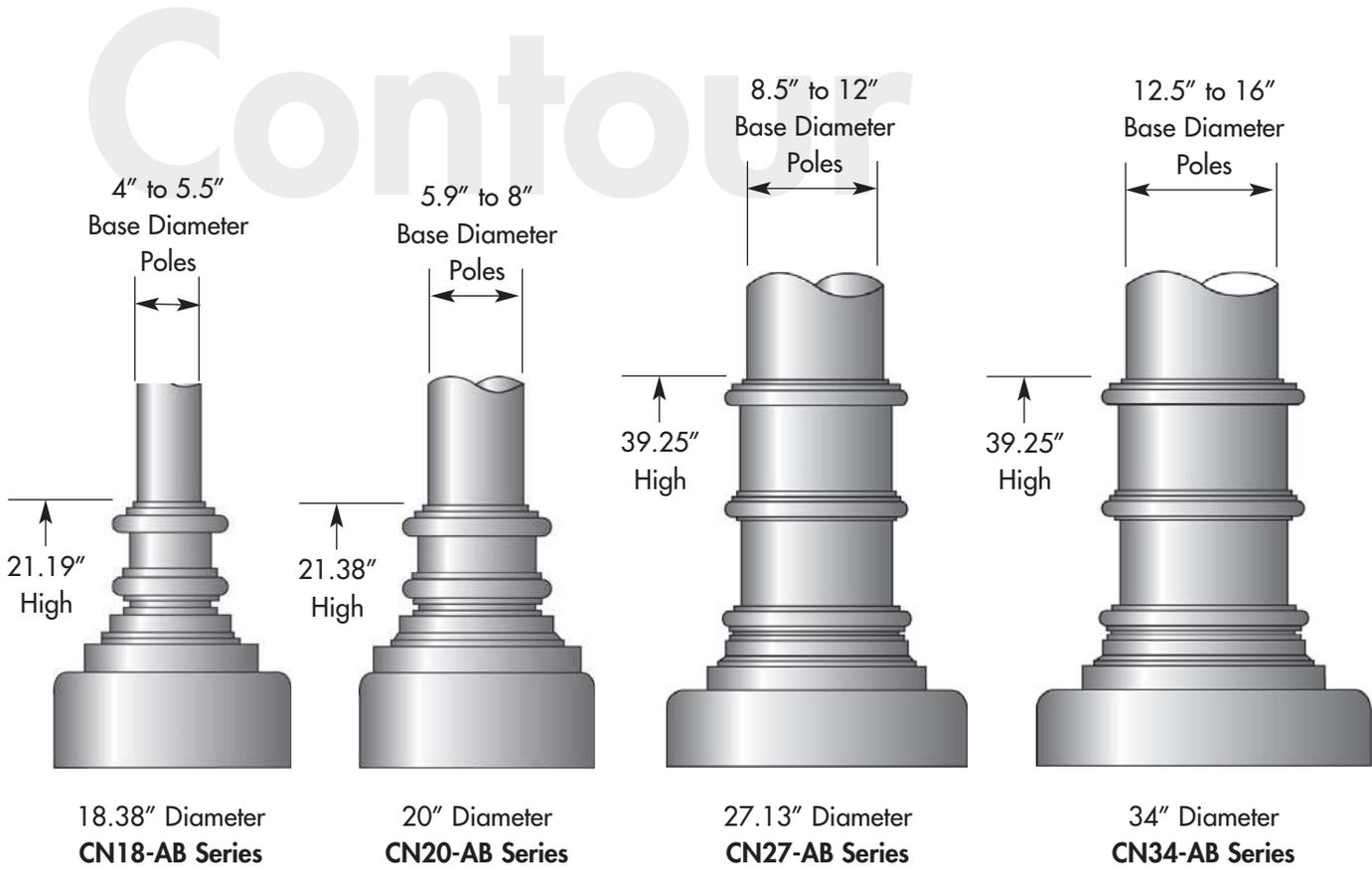


Pedestrian

Street Lighting

Traffic

Note: Base hexagonal dimension is flat to flat.



Pedestrian

Street Lighting

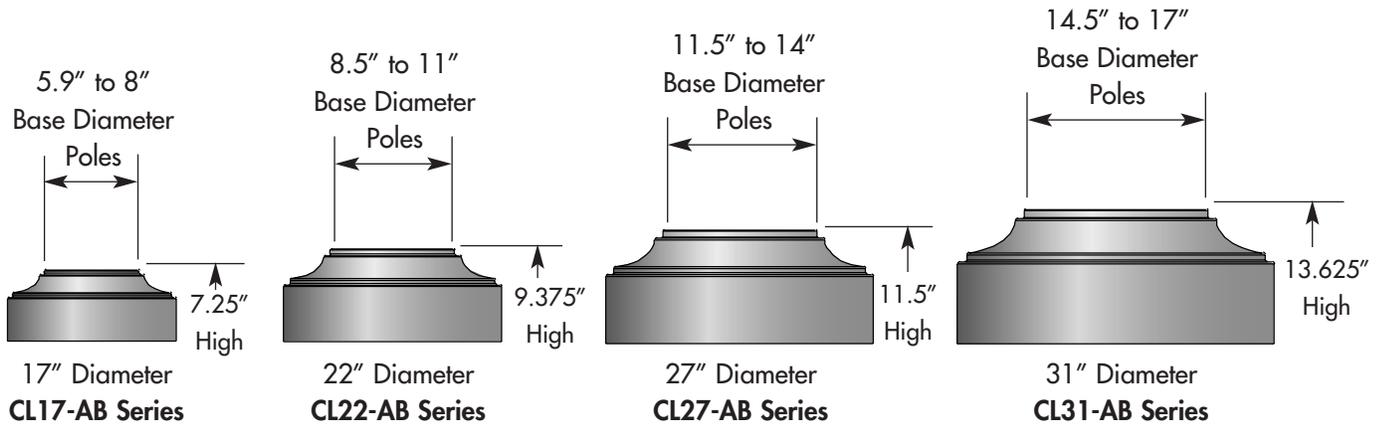
Traffic



Classic

- Clamshell design with stainless steel hardware.
- Factory fabricated from aluminum components.
- Modular family can accommodate poles of all sizes.

Low Bases

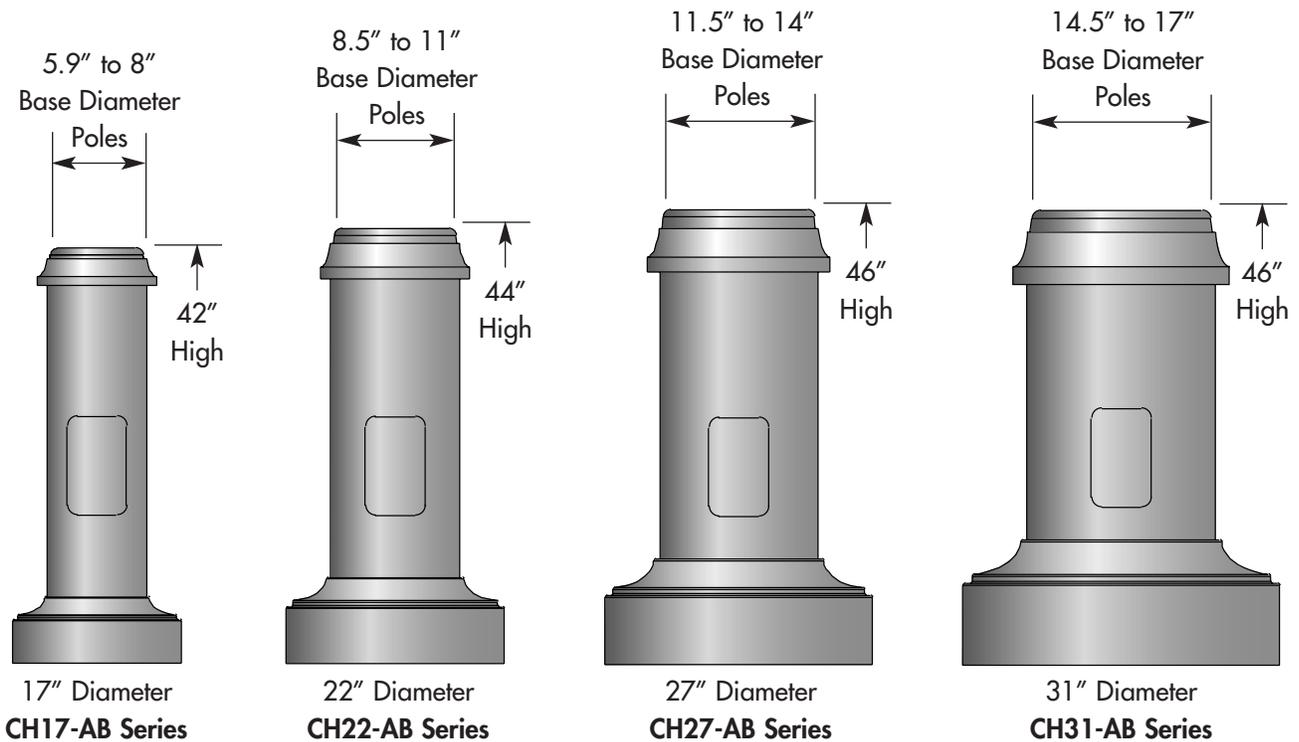


Pedestrian

Street Lighting

Traffic

High Bases



Pedestrian

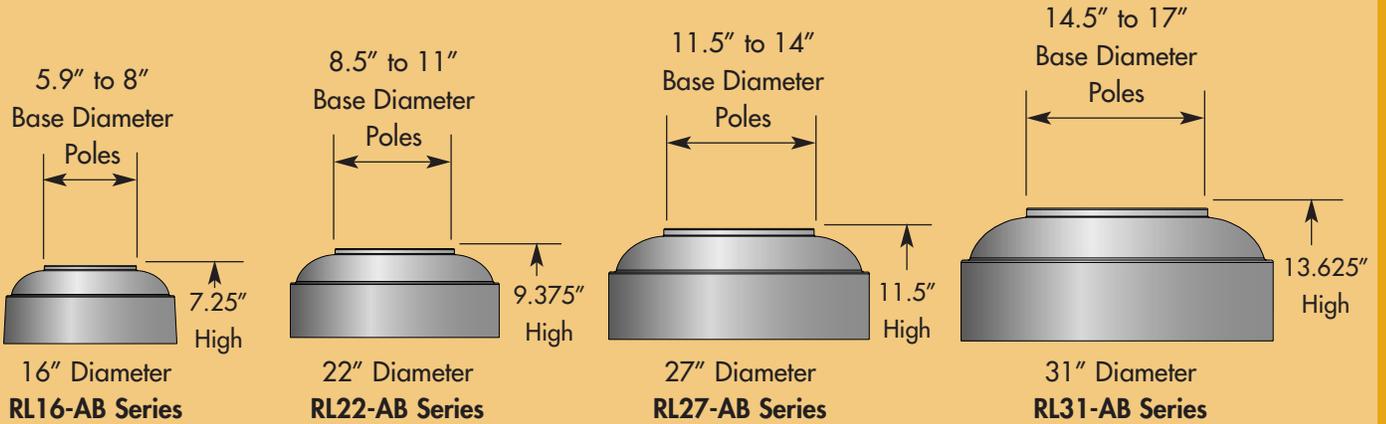
Street Lighting

Traffic

- Can be used with smooth or fluted poles.
- High and low bases of the same design can be used together for multiple applications on the same project.

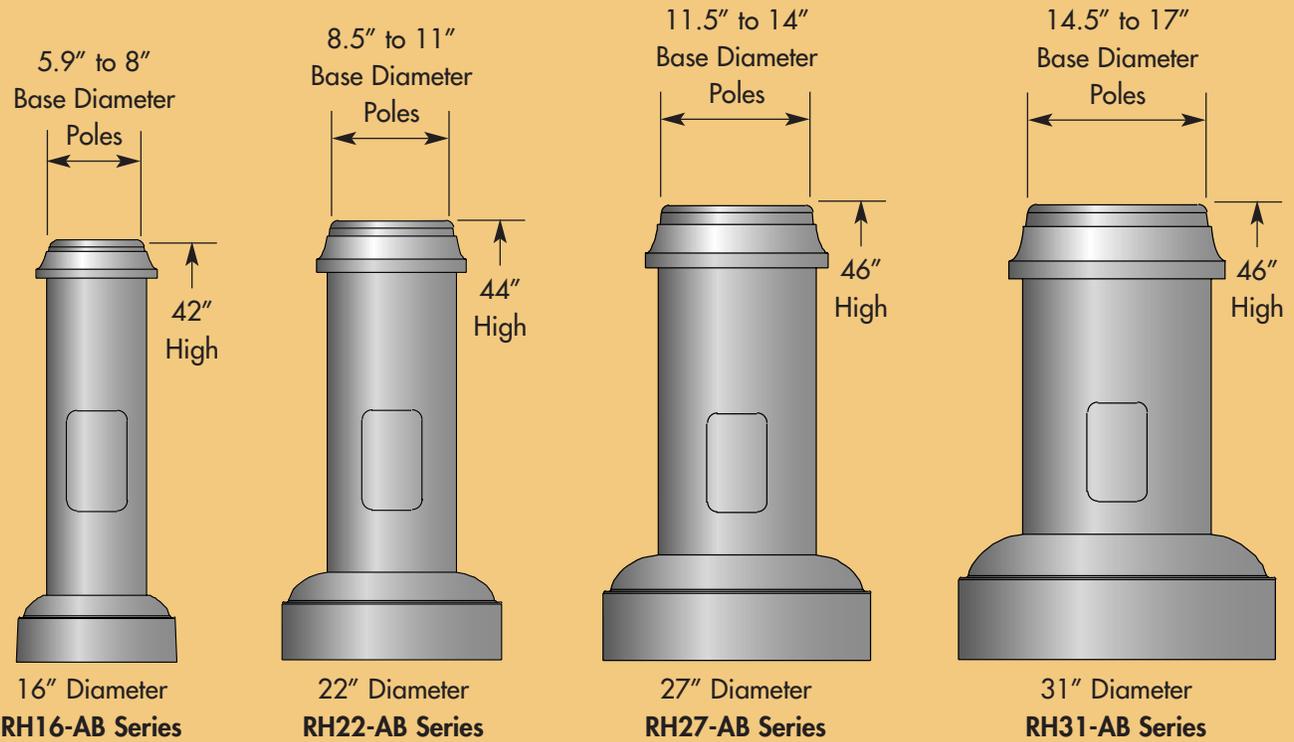
Renaissance

Low Bases



Pedestrian Street Lighting Traffic

High Bases



Pedestrian Street Lighting Traffic



Base Construction

The decorative aluminum base is constructed of two identical cast clamshells A319 alloy aluminum or equivalent. Parts are cast whole or in components and welded together prior to application of finish.

Hardware

Connecting hardware are stainless steel socket head style bolts. Tamperproof type hardware is available as a special order. All hardware is accessible from outside the base for easy installation. Clamshell halves are factory fitted and shipped together.

Access Doors

Each half is identical with an integral door designed to fit the aesthetic appearance of the base. Doors are supplied with stainless steel socket style screws.

Fit Tolerances to Pole

Clamshell bases are designed to wrap around the pole with a circular hole with a tolerance of .25" maximum clear between the pole and the casting. For fluted poles, the flutes will start 1-2" above the top of the base for a clean appearance.

Finish Specifications

The standard base finish is polyester powder coating applied in accordance with Valmont Industries' Specifications.

Top Opening Dimensions

The top opening dimensions are calculated using the pole base dimension and a taper rate of .14" per foot. The opening is designed to accommodate the outside diameter of mandrel formed round tubes and the point-to-point diameter of multi-sided tubes.

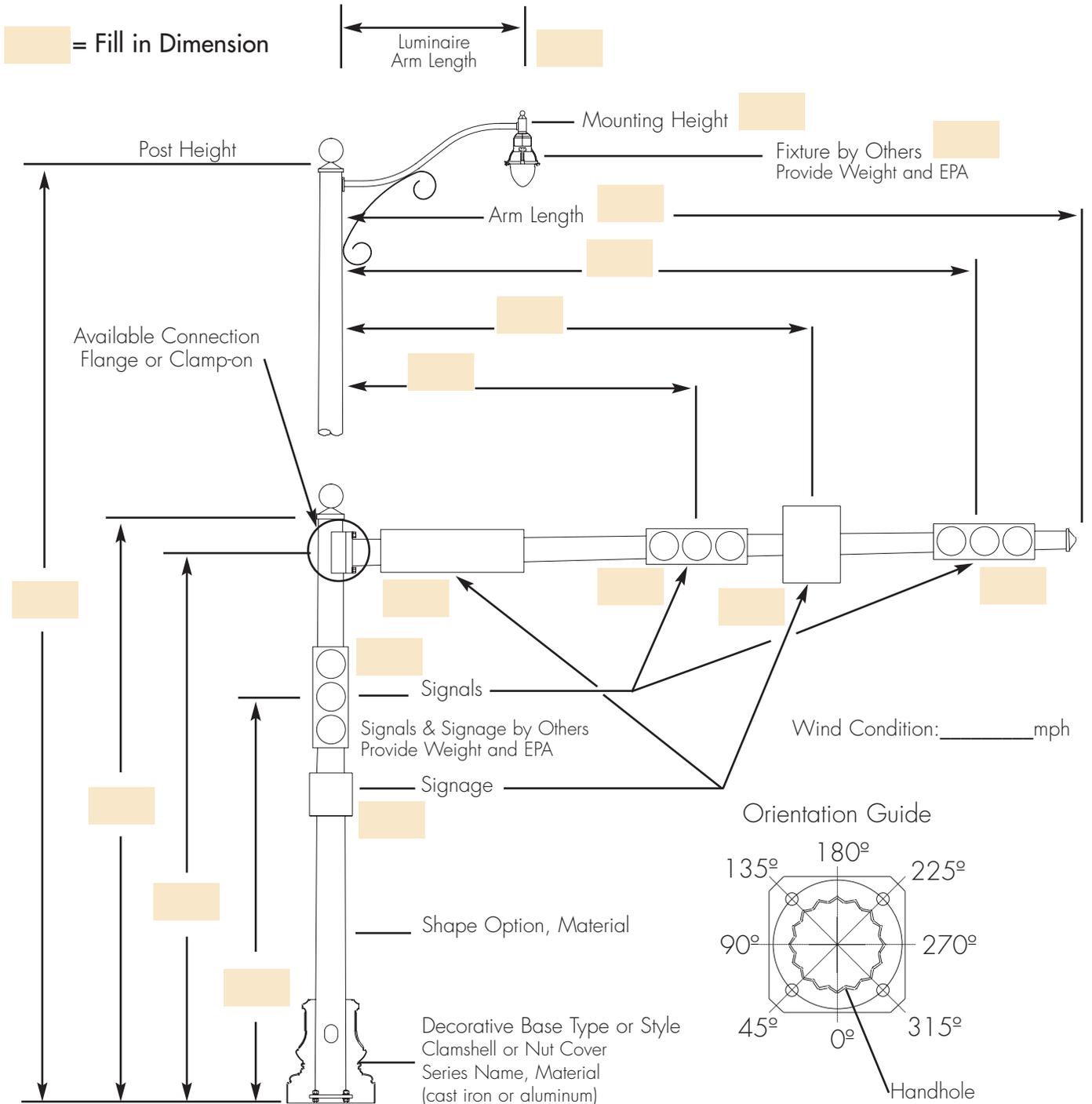
www.valmont.com

Series	Base Diameter	Material/Style A B	Fits Pole with Base Dia.	Base Height	Standard Finishes	Hardware Options																																																																																									
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Note: Refer to Specification Pages or contact Valmont for available specific base diameter, height and pole base diameter combinations.

The following information is required to provide complete specifications for your project. This includes the gauge and diameter of the post shaft, the size of the base (determined by the shaft dia.) and the anchor bolt size. Please fill in the boxes below.

- Local Structural Code
- Local Wind Condition
- Shaft Type (shape)
- Base Series
- Finish Type (galv., powdercoat, powdercoat over galv.)
- Equipment Mounted to Post
 - Width X Length (projected area)
 - Weight
 - Location (height and orientation)
 - Signal EPA to be calculated with backplates, if required.





Valley, Nebraska, USA
Farmington, Minnesota, USA
Salem, Oregon, USA
Charmeil, France
Rive-De-Gier, France
Berrechid, Morocco

Commerce City, Colorado, USA
Elkhart, Indiana, USA
Selbyville, Delaware, USA
Siedlce, Poland
Maarheeze, the Netherlands
Chesterfield-Derbyshire, UK

Brenham, Texas, USA
Plymouth, Indiana, USA
St. Julie, Quebec, Canada
Gelsenkirchen, Germany
Shanghai, China

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STRUCTURES

Conserving Resources. Improving Life.

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7002 N. 288th Street, P.O. Box 358
Valley, Nebraska 68064 USA
402.359.2201 ~ 800.825.6668
www.valmont.com





Why Choose Valmont?

Wherever you go in the world, Valmont is within reach. By maintaining production facilities in many locations, we at Valmont can better understand our customer’s specific needs while also participating in local markets, thus, offering fulfillment timelines unmatched by anyone in the industry. Wherever your project is in the world, Valmont is there ensuring that our customers have available “the best of all worlds.”

We have the global engineering resources and expertise to fulfill your needs. Valmont’s staff is dedicated to providing precision engineered designs for your standard and specialty projects. Our engineers have more than 600 years of combined experience and have created numerous standard structures for many of our customers — standards that serve successfully in all kinds of conditions, year after year.

Valmont has the knowledge, the expertise and the resources to provide the highest quality products and services in the industry, on time and at a competitive cost. We welcome the opportunity to discuss your next project.

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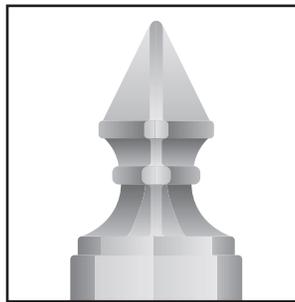
8-Flute Steel Tapered with Cast Base and Pipe Luminaire Arm



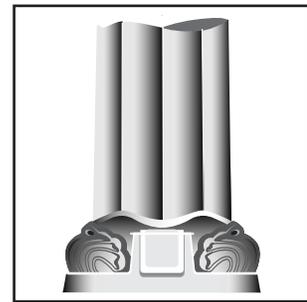
Available with or without the channel scroll.

Standard Components

Cast Pole Top Cap

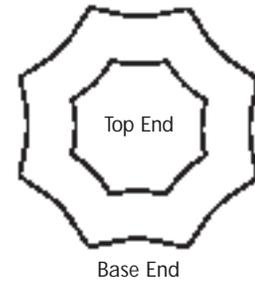


Steel Cast Base



Cross-Section

8-Sharp Flute



Nominal Mounting Height (Ft.)	Pole Tube			Base Casting		Anchor Bolts		
	Base O.D. (In.)	Gauge	Length (Ft.)	Bolt Circle (In.)	Square (In.)	Diameter (In.)	Length (In.)	Hook (In.)
21	6.50	11	20	9.5	10.00	1.00	36	4
31	8.00	11	30	11.00	11.50	1.00	36	4
41	9.50	11	40	13.00	13.50	1.25	36	6

FLC30 Fluted Pole Specification

General

The FLC30 fluted pole shall consist of a tapered pole, non-tapered luminaire arm, scroll (if required), anchor bolts, and cast steel base. The pole shall have an 8 sharp (octaflute) cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall run the entire length of the shaft and be oriented to accept the cast steel base. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole shall be provided with a decorative cap secured in place with set screws.

Fluting Process

The pole shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp flute shaft. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. All 8 rollers shall be engaged at the same time so as to produce a consistent, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Luminaire Arm

The luminaire arm(s) shall be made from 2.375" diameter tubing with a minimum yield strength of 36,000 psi. The arm spans can be 4', 6' or 8' in length and will have a 1' upsweep rise above the top of the pole. The pole and arm simplex components shall be made of cast steel and welded to their respective members. The arm and pole castings shall mate together to allow the luminaire arm to be erected and held in place by gravity while being secured by a single 0.5" - 13 UNC high strength hex head hub bolt. Twin luminaire arm applications are oriented at 180 degrees with respect to each other.

Scroll (Optional)

The decorative scroll is a formed steel channel attached to the side of the pole and to the underside of the arm with hex head bolts.

Anchor Bolts and Cast Steel Base

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. The cast steel base shall be the style as shown in the contract documents and conform to ASTM A27, 65-35. The base shall be integrally welded to the tubes with a telescopic welded joint.

Decorative Nut Covers and Pole Cap

The decorative nut covers shall be a sandcast alloy 356.2 and be attached to the cast steel base using stainless steel, tamper resistant, allen head screws. The decorative pole cap shall be made from the same alloy and attached to the pole using three set screws.

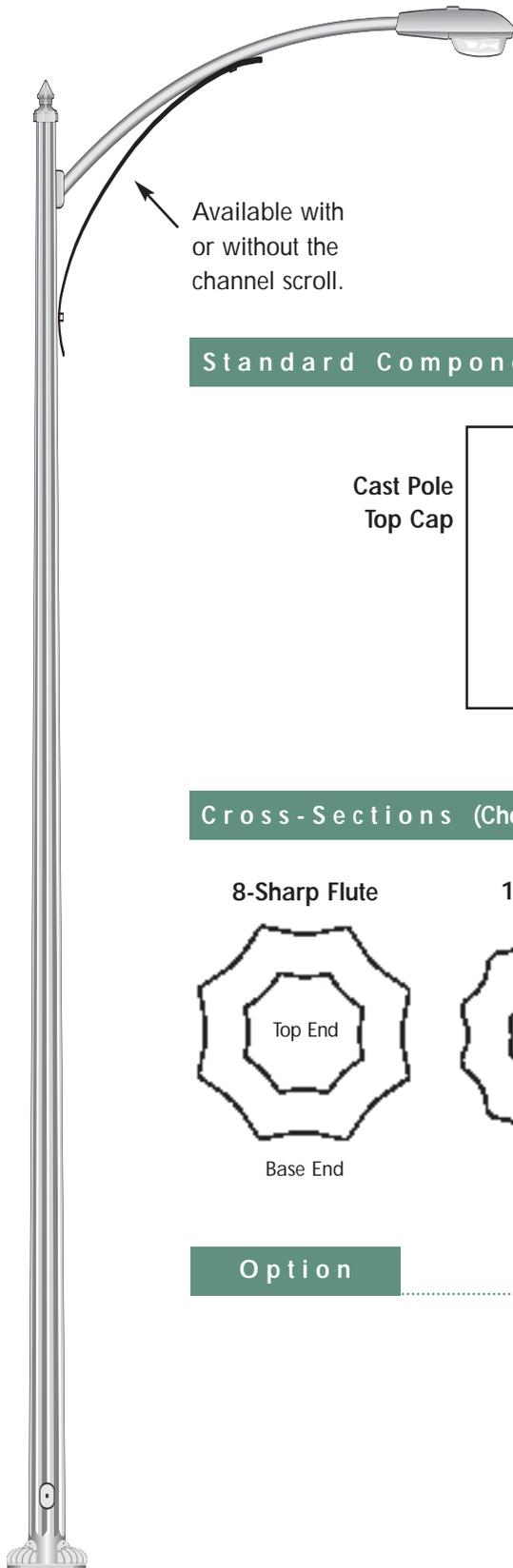
Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include luminaire arm, pole, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.

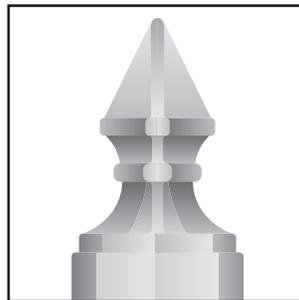
Fluted Steel Tapered with Pipe Luminaire Arm



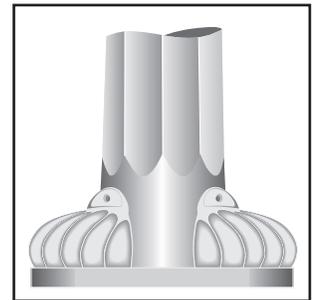
Available with or without the channel scroll.

Standard Components

Cast Pole Top Cap

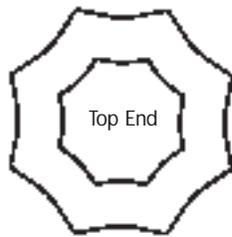


Cast Nut Cover



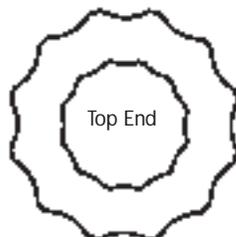
Cross-Sections (Choose One)

8-Sharp Flute



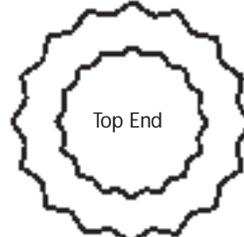
Base End

12-Flat Flute



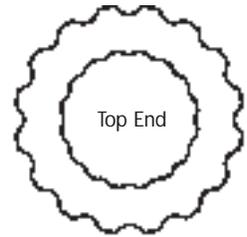
Base End

16-Sharp Flute



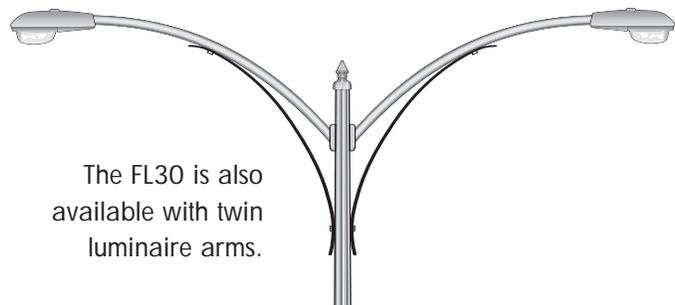
Base End

16-Flat Flute



Base End

Option



The FL30 is also available with twin luminaire arms.

FL30 Fluted Pole Specification

General

The FL30 fluted pole shall consist of a tapered pole, non-tapered luminaire arm, scroll (if required), anchor bolts, and base plate. The pole shall be fluted and shall have an 8 sharp, 12 flat, 16 sharp or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall terminate approximately 6" from the base plate connection to increase the product's fatigue life, to facilitate welding and the attachment of the decorative nut covers, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole shall be provided with a decorative cap secured in place with set screws.

Fluting Process

The pole shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Luminaire Arm

The luminaire arm(s) shall be made from 2.375" diameter tubing with a minimum yield strength of 36,000 psi. The arm spans can be 4', 6' or 8' in length and will have a 1' upsweep rise above the top of the pole. The pole and arm simplex components shall be made of cast steel and welded to their respective members. The arm and pole castings shall mate together to allow the luminaire arm to be erected and held in place by gravity while being secured by a single 0.5" - 13 UNC high strength hex

head hub bolt. Twin luminaire arm applications are oriented at 180 degrees with respect to each other.

Scroll (Optional)

The decorative scroll is a formed steel channel attached to the side of the pole and to the underside of the arm with hex head bolts.

Anchor Bolts and Base Plate

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A decorative cast aluminum nut cover shall be provided for each anchor bolt. Each nut cover shall be attached to the pole with a 0.25" stainless steel, self tapping, hex head screw. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Decorative Nut Covers and Pole Cap

The decorative nut covers shall be a sandcast alloy 356.2 and be attached to the pole using stainless steel, self tapping, screws. The decorative pole cap shall be made from the same alloy and attached to the pole using three set screws.

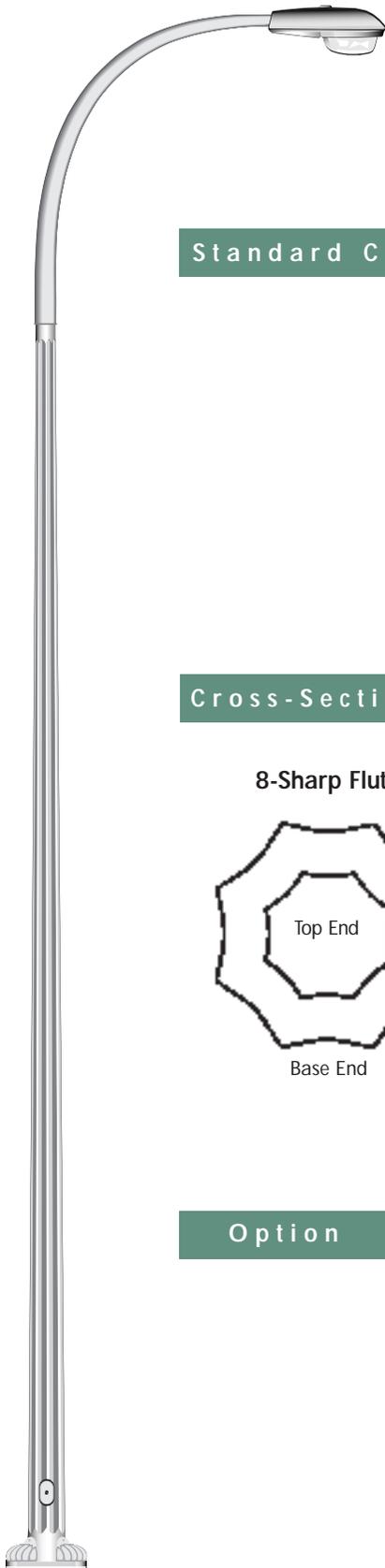
Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include luminaire arm, pole, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.

Fluted Steel Tapered with Davit Luminaire Arm



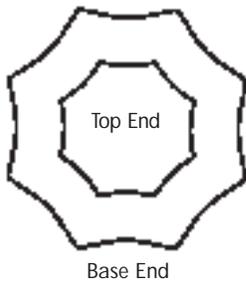
Standard Components

Cast Nut Cover

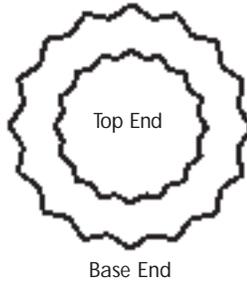


Cross-Sections (Choose One)

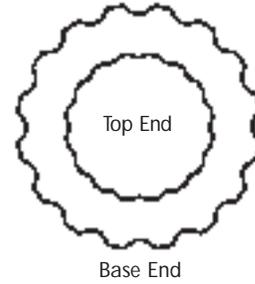
8-Sharp Flute



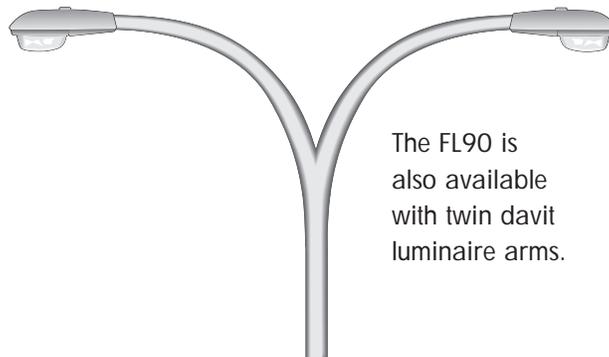
16-Sharp Flute



16-Flat Flute



Option



The FL90 is also available with twin davit luminaire arms.

FL90 Fluted Pole Specification

General

The FL90 fluted pole shall consist of a tapered pole, davit luminaire arm, anchor bolts, and base plate. The pole shall be fluted and shall have an 8 sharp, 16 flat, or 16 sharp cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall terminate approximately 6" from the base plate connection to increase the product's fatigue life, to facilitate welding and the attachment of the decorative nut covers, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base.

Davit Luminaire Arm

Arms shall conform to ASTM A595 Grade A with a minimum yield strength of 55 ksi, have a round cross-section and a constant linear taper of 0.14 in/ft. The arm shall be smoothly bent to a 6'-3" inside radius. The twin arm assembly shall be telescopically slip fit over the pole and fastened together to assure arms will not rotate in high wind conditions. The minimum length of the telescopic slip splices shall be 1.5 times the inside diameter of the exposed end of the female section. The arm end shall have a standard pipe tenon conforming to ASTM A53 Grade B welded to a hot rolled mild carbon (HRMS) steel plate which, in turn, is welded to the arm; or be reformed to a constant outside diameter of 2.38" over an 8" length.

Fluting Process

The pole shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of

the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Anchor Bolts and Base Plate

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A decorative cast aluminum nut cover shall be provided for each anchor bolt. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Decorative Nut Covers

The decorative nut covers shall be a sandcast alloy 356.2 and be attached to the pole using 0.25" stainless steel, self tapping, hex head screws.

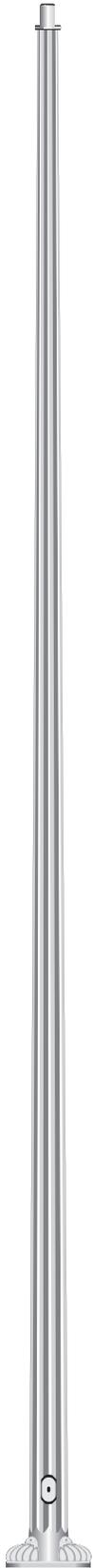
Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

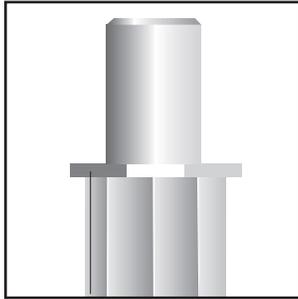
Calculations

Calculations, if required, shall include the pole, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.

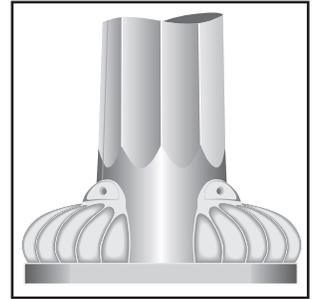
Fluted Steel Tapered with Tenon



Standard Components



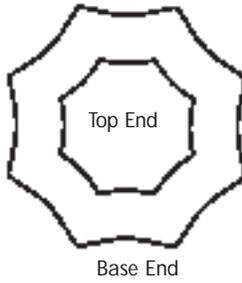
Tenon
 P2 = 2.375" OD X 4" L
 P4 = 4" OD X 6" L



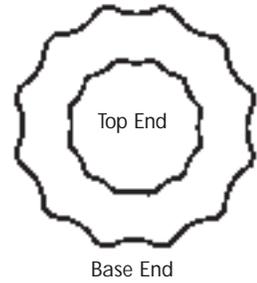
Cast Nut Cover

Cross-Sections (Choose One)

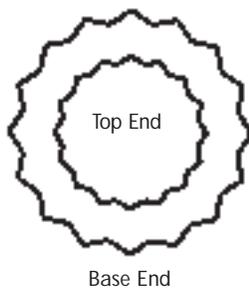
8-Sharp Flute



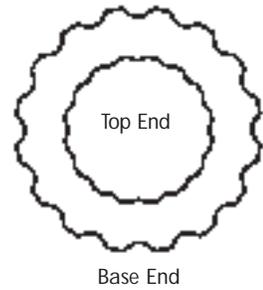
12-Flat Flute



16-Sharp Flute



16-Flat Flute



FL210 Fluted Pole Specification

General

The FL210 fluted pole shall consist of a tapered pole, pole top tenon, anchor bolts, and base plate. The pole shall be fluted and shall have an 8 sharp, 12 flat, 16 sharp, or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall terminate approximately 6" from the base plate connection to increase the product's fatigue life, to facilitate welding and the attachment of the decorative nut covers, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base.

Fluting Process

The pole shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Pole Top Tenon

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed yield strength of

30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wire raceway into the pole top tenon. A (P2) tenon is 2.38" O.D. x 4" long and the (P4) is 4.00" O.D. x 6" long steel tubing.

Anchor Bolts and Base Plate

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A decorative cast aluminum nut cover shall be provided for each anchor bolt. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Decorative Nut Covers

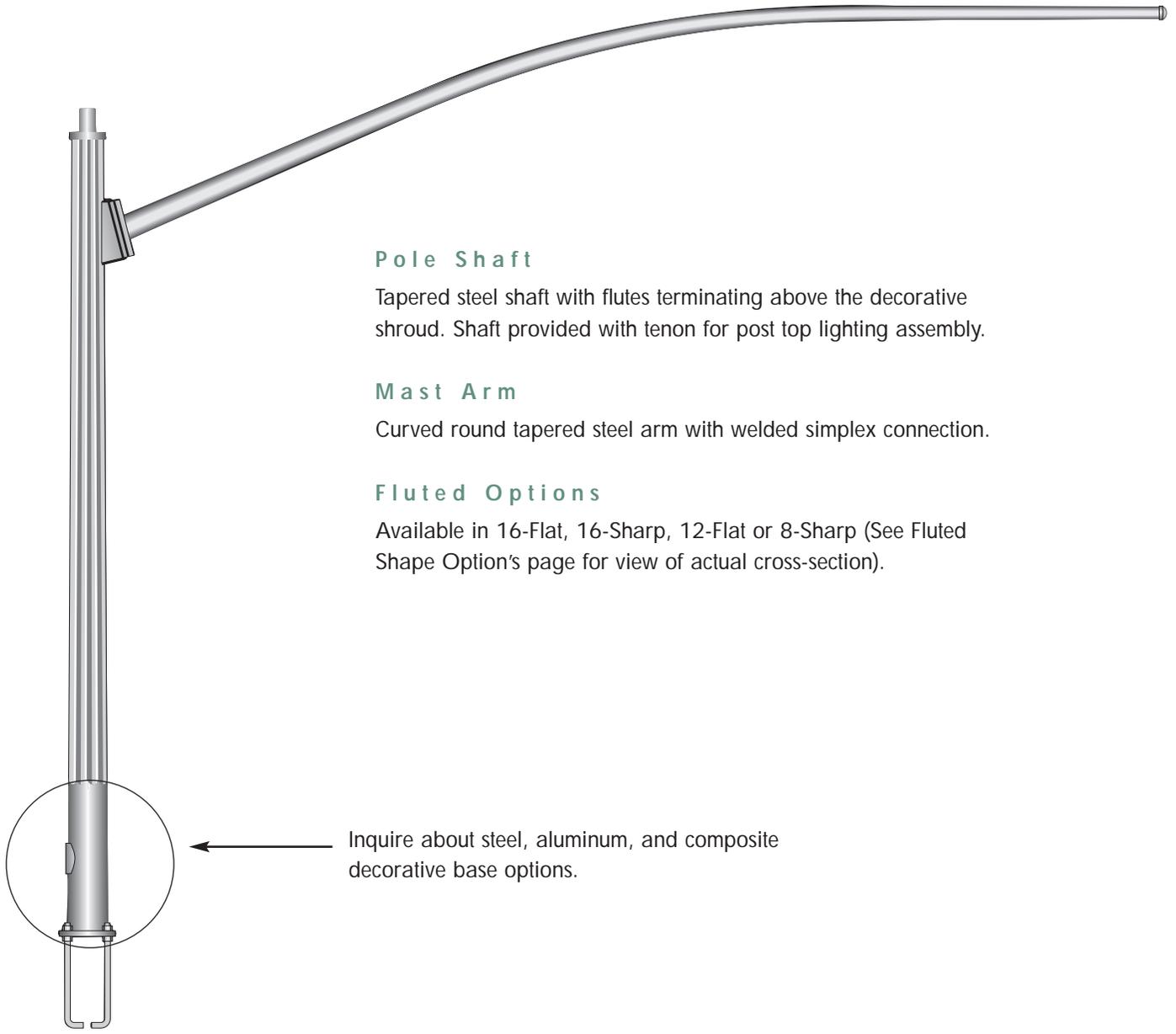
The decorative nut covers shall be a sandcast alloy 356.2 and be attached to the pole using 0.25" stainless steel, self tapping, hex head screws.

Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include the pole, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position at the pole base. Maximum pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.



Pole Shaft

Tapered steel shaft with flutes terminating above the decorative shroud. Shaft provided with tenon for post top lighting assembly.

Mast Arm

Curved round tapered steel arm with welded simplex connection.

Fluted Options

Available in 16-Flat, 16-Sharp, 12-Flat or 8-Sharp (See Fluted Shape Option's page for view of actual cross-section).

← Inquire about steel, aluminum, and composite decorative base options.

FLCM46 Tenon Fluted Traffic Pole Specification

General

The fluted traffic pole shall consist of a tapered pole and traffic signal mast arm, anchor bolts, and base plate. The pole shall be fluted, but the traffic signal mast arm shall be round. Fluted tubes shall have an 8 sharp, 12 flat, 16 sharp, or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The pole shaft shall be provided with a pole top tenon assembly to accept the decorative lighting assembly as specified. The flutes shall terminate above the handhole, approximately 1.5", above the top of the decorative shroud. The termination of the flutes is to increase the product's fatigue life, to facilitate welding, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base.

Mast Arm

Round mast arms shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistant Weld (ERW), and shall be smooth with no visual appearance. Round mast arms up to 50' shall be manufactured and shipped in one piece. The round mast arm shall be curved as specified and bolted to the shaft using a welded simplex connection. Circumferential welded butt splices and laminated tubes are not permitted. Each arm shall be provided with an end cap secured in place with set screws.

Fluting Process

The pole tubes shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest,

through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Anchor Bolts and Base Plate

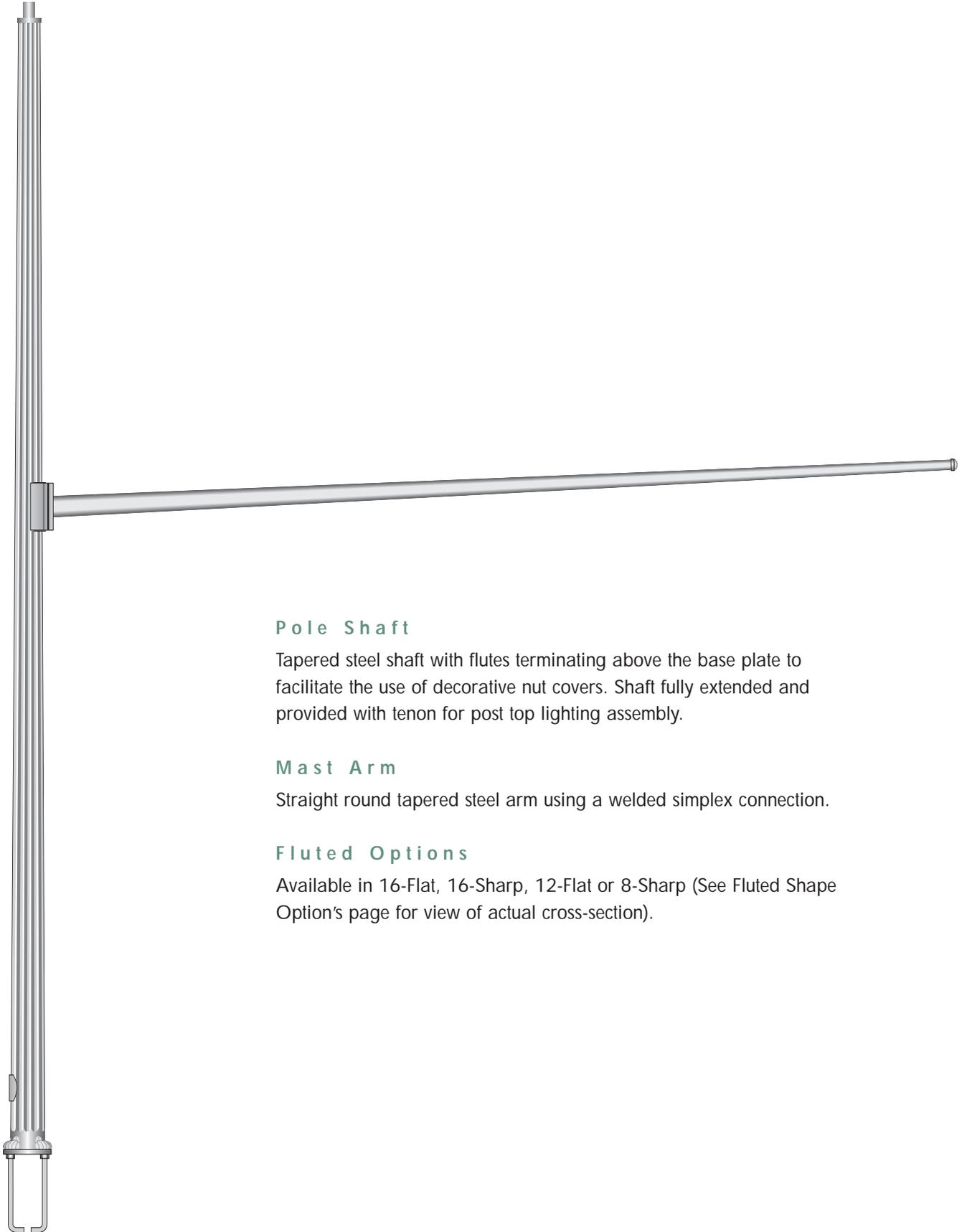
Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.)

Calculations

Calculations, if required, shall include pole, mast arm, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.



Pole Shaft

Tapered steel shaft with flutes terminating above the base plate to facilitate the use of decorative nut covers. Shaft fully extended and provided with tenon for post top lighting assembly.

Mast Arm

Straight round tapered steel arm using a welded simplex connection.

Fluted Options

Available in 16-Flat, 16-Sharp, 12-Flat or 8-Sharp (See Fluted Shape Option's page for view of actual cross-section).

FLCB16 Tenon Fluted Traffic Pole Specification

General

The fluted traffic pole shall consist of a tapered pole and traffic signal mast arm, anchor bolts, and base plate. The pole shall be fluted, but the traffic signal mast arm shall be round. Fluted tubes shall have an 8 sharp, 12 flat, 16 sharp, or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The pole shaft shall be provided with a pole top tenon assembly to accept the decorative lighting assembly as specified. The flutes shall terminate approximately 6" above the base plate connection. The termination of the flutes is to increase the product's fatigue life, to facilitate welding and the attachment of decorative nut covers, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole shall be provided with a cap secured in place with set screws.

Mast Arm

Round mast arms shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistant Weld (ERW), and shall be smooth with no visual appearance. Round mast arms up to 50' shall be manufactured and shipped in one piece. The round mast arm shall be straight as specified and bolted to the shaft using a welded simplex connection. Circumferential welded butt splices and laminated tubes are not permitted. Each arm shall be provided with an end cap secured in place with set screws.

Fluting Process

The pole tubes shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the

flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Anchor Bolts and Base Plate

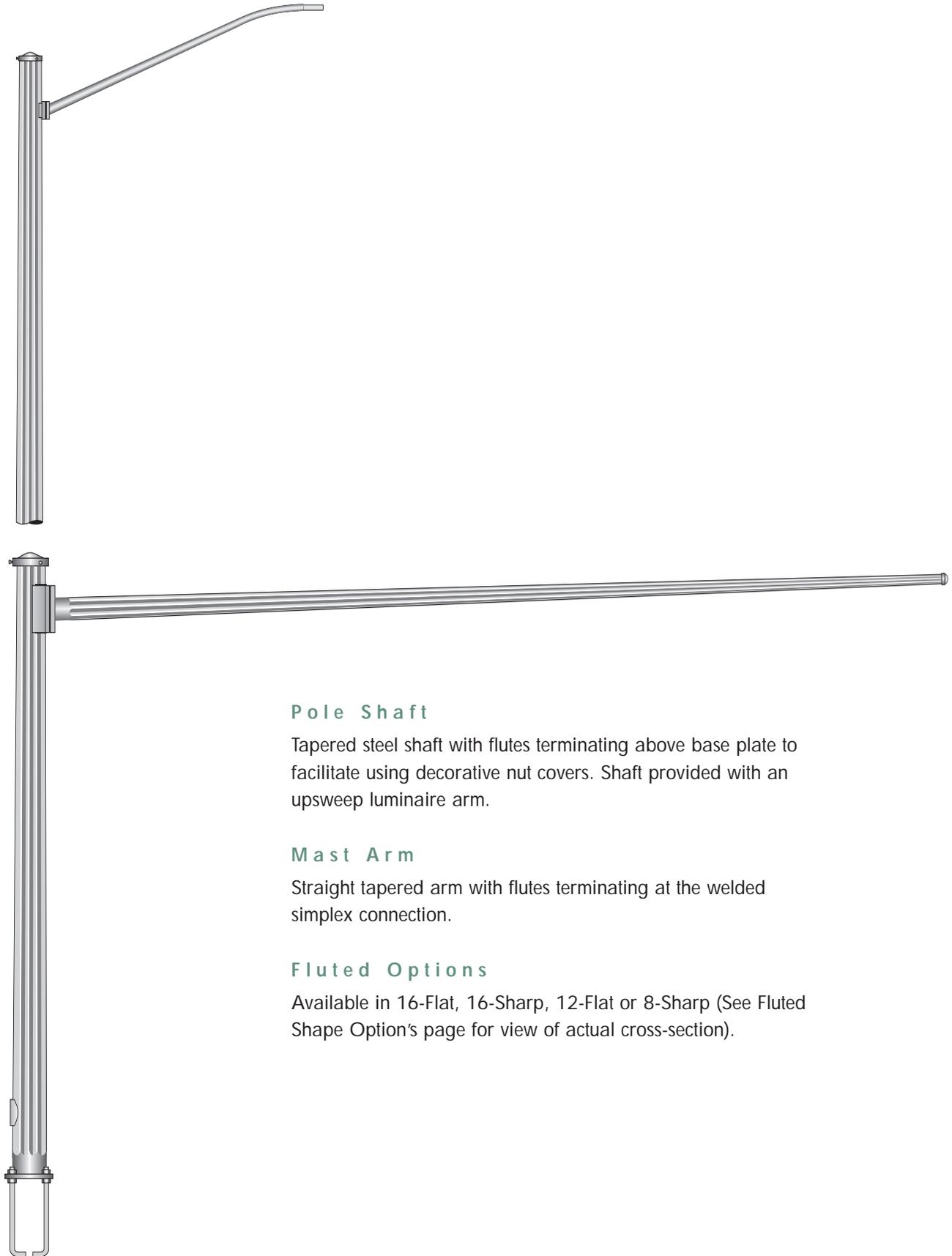
Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A decorative cast aluminum nut cover shall be provided for each anchor bolt. Each nut cover shall be attached to the pole with a 0.25" stainless steel, self tapping, hex head screw. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include pole, mast arm, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.



Pole Shaft

Tapered steel shaft with flutes terminating above base plate to facilitate using decorative nut covers. Shaft provided with an upsweep luminaire arm.

Mast Arm

Straight tapered arm with flutes terminating at the welded simplex connection.

Fluted Options

Available in 16-Flat, 16-Sharp, 12-Flat or 8-Sharp (See Fluted Shape Option's page for view of actual cross-section).

FLCB16 Arm Fluted Traffic Pole Specification

General

The fluted traffic pole shall consist of a tapered pole and traffic signal mast arm, luminaire arm, anchor bolts, and base plate. The pole shall be fluted, but the traffic signal mast arm shall be round. Fluted tubes shall have an 8 sharp, 12 flat, 16 sharp, or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall terminate approximately 6" above the base plate connection. The termination of the flutes is to increase the product's fatigue life, to facilitate welding and the attachment of decorative nut covers, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Each pole shall be provided with a cap secured in place with set screws.

Mast Arm

Fluted mast arms shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistant Weld (ERW), and shall be smooth with no visual appearance. Mast arms up to 40' shall be manufactured and shipped in one piece. The fluted mast arm shall be straight as specified with flutes terminating approximately 3" from the large end to increase the product's fatigue life, to facilitate welding, and for aesthetic appeal. The arms shall be bolted to the shaft using a welded simplex connection. Circumferential welded butt splices and laminated tubes are not permitted. Each arm shall be provided with an end cap secured in place with set screws.

Luminaire Arm

The tapered luminaire arm shall be made from the same process as the shaft and mast arm. Each arm end shall be provided with a 2.38" slipfitter and be provided with the length and arm rise as specified. The arm shall be attached to the pole using a welded simplex connection and three 0.75" hex cap screws.

Fluting Process

The pole tubes shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted

shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section, all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Anchor Bolts and Base Plate

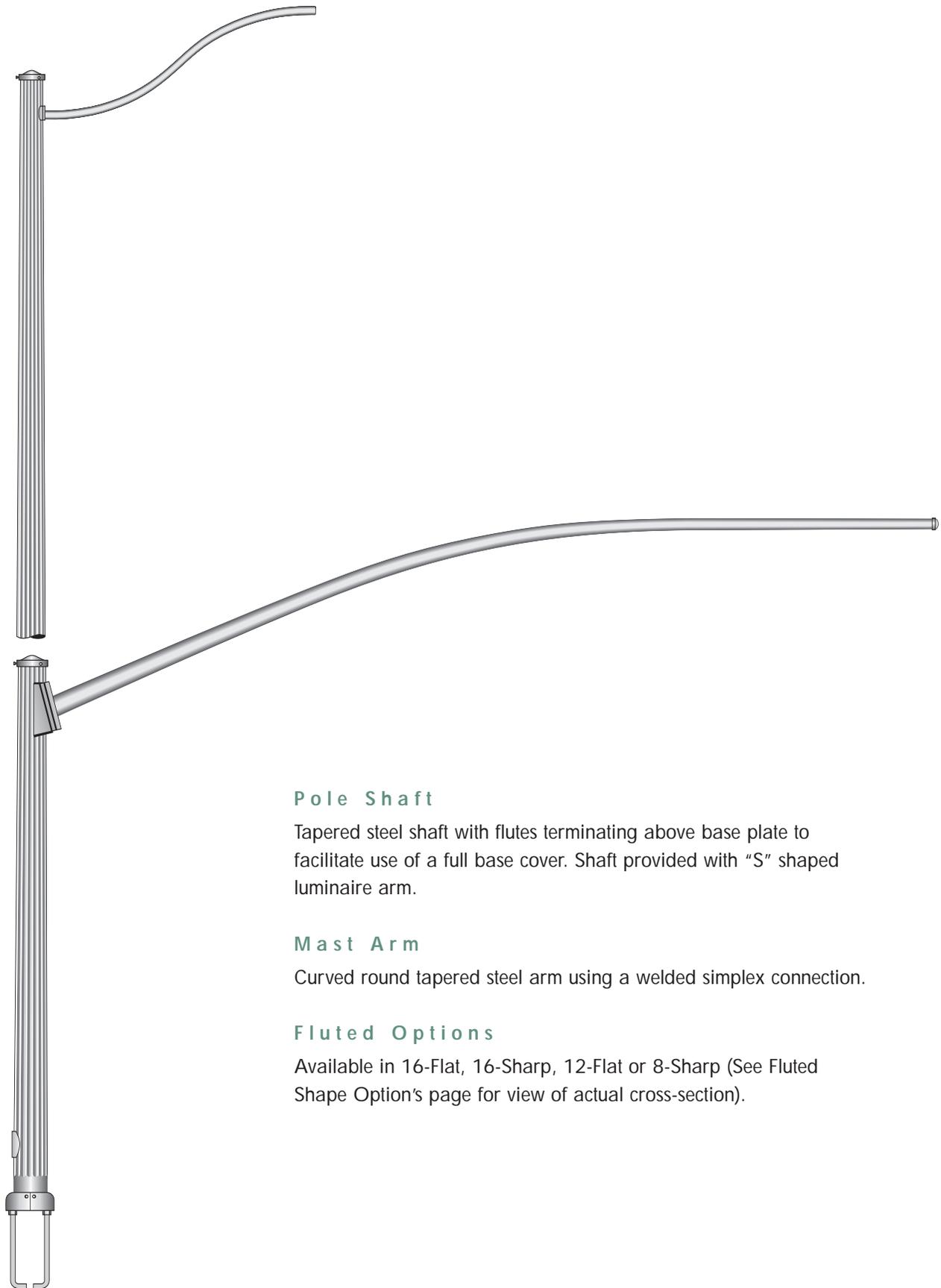
Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A decorative cast aluminum nut cover shall be provided for each anchor bolt. Each nut cover shall be attached to the pole with a 0.25" stainless steel, self tapping, hex head cap screw. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Finish

The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

Calculations

Calculations, if required, shall include pole, mast arm, luminaire arm, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.



Pole Shaft

Tapered steel shaft with flutes terminating above base plate to facilitate use of a full base cover. Shaft provided with "S" shaped luminaire arm.

Mast Arm

Curved round tapered steel arm using a welded simplex connection.

Fluted Options

Available in 16-Flat, 16-Sharp, 12-Flat or 8-Sharp (See Fluted Shape Option's page for view of actual cross-section).

FLCB46 Arm Fluted Traffic Pole Specification

General

The fluted traffic pole shall consist of a tapered pole and traffic signal mast arm, luminaire arm, anchor bolts, and base plate. The pole shall be fluted, but the traffic signal mast arm shall be round. Fluted tubes shall have an 8 sharp, 12 flat, 16 sharp or 16 flat cross-section as specified in the contract documents.

Pole

The fluted pole shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistance Weld (ERW), and shall be smooth with no visual appearance. The flutes shall terminate 6" from the base plate connection and approximately 1.5" above the steel full base cover. The termination of the flutes is to increase the product's fatigue life, to facilitate welding, and for aesthetic appeal. The shaft shall be one piece, and contain no circumferential welded butt splices. Laminated tubes are not permitted. The pole shall have a reinforced 4.0" x 6.5" handhole with cover located 1'-6" from the pole base. Top of each pole shall be provided with a cap secured in place with set screws.

Mast Arm

Round mast arms shall be formed from tubes conforming to ASTM A595 process, and have a constant linear taper of 0.14 in/ft. The tube's seam weld shall be formed by the Electric Resistant Weld (ERW), and shall be smooth with no visual appearance. Round mast arms up to 50' shall be manufactured and shipped in one piece. The round mast arm shall be curved as specified and bolted to the shaft using a welded simplex connection. Circumferential welded butt splices and laminated tubes are not permitted. Each arm shall be provided with an end cap secured in place with set screws.

Fluting Process

The pole tubes shall be cold rolled over a precision hardened steel mandrel to form an 8 sharp, 12 flat, 16 sharp or 16 flat flute shaft as specified. The fluted shaft shall have uniform, equally spaced Doric flutes. The flutes shall be formed with 3" diameter rollers in full contact with the material from the top of the crest, through the valley of the flute, to the top of the next crest. The termination of the flutes shall be well defined by having no greater than 1.5 inch radii transition into the round section of the pole. For the 8 and 16 flute cross-sections, all 8 or 16 rollers respectively shall be engaged at the same time so as to produce a consistent, near perfect cross-section. For the 12 flat cross-section,

all flats and valleys shall be rolled to produce the same well defined, near perfect cross-section. Individually rolled flutes or round poles with a separate fluted sheathing are not permitted.

Luminaire Arm

The luminaire arm shall be made from 2.375" diameter tubing with a minimum yield strength of 36,000 psi. Arm span length is per the contract documents and will have a 2.5' upsweep rise above the top of the pole. The arm shall be formed to match the detail as shown. The pole and arm simplex components shall be made of cast steel and welded to their respective members. The castings shall mate together to allow the luminaire arm to be erected and held in place by gravity while being secured in place by two 0.5" - 13 UNC high strength, hex head, hub bolts.

Anchor Bolts and Base Plate

Anchor bolts shall conform to the requirements of AASHTO M314 Grade 55. The upper 12" of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. A steel 2-pc. full base cover shall be provided with each pole. Base plates shall conform to ASTM A36 and shall be integrally welded to the tubes with a telescopic welded joint.

Finish

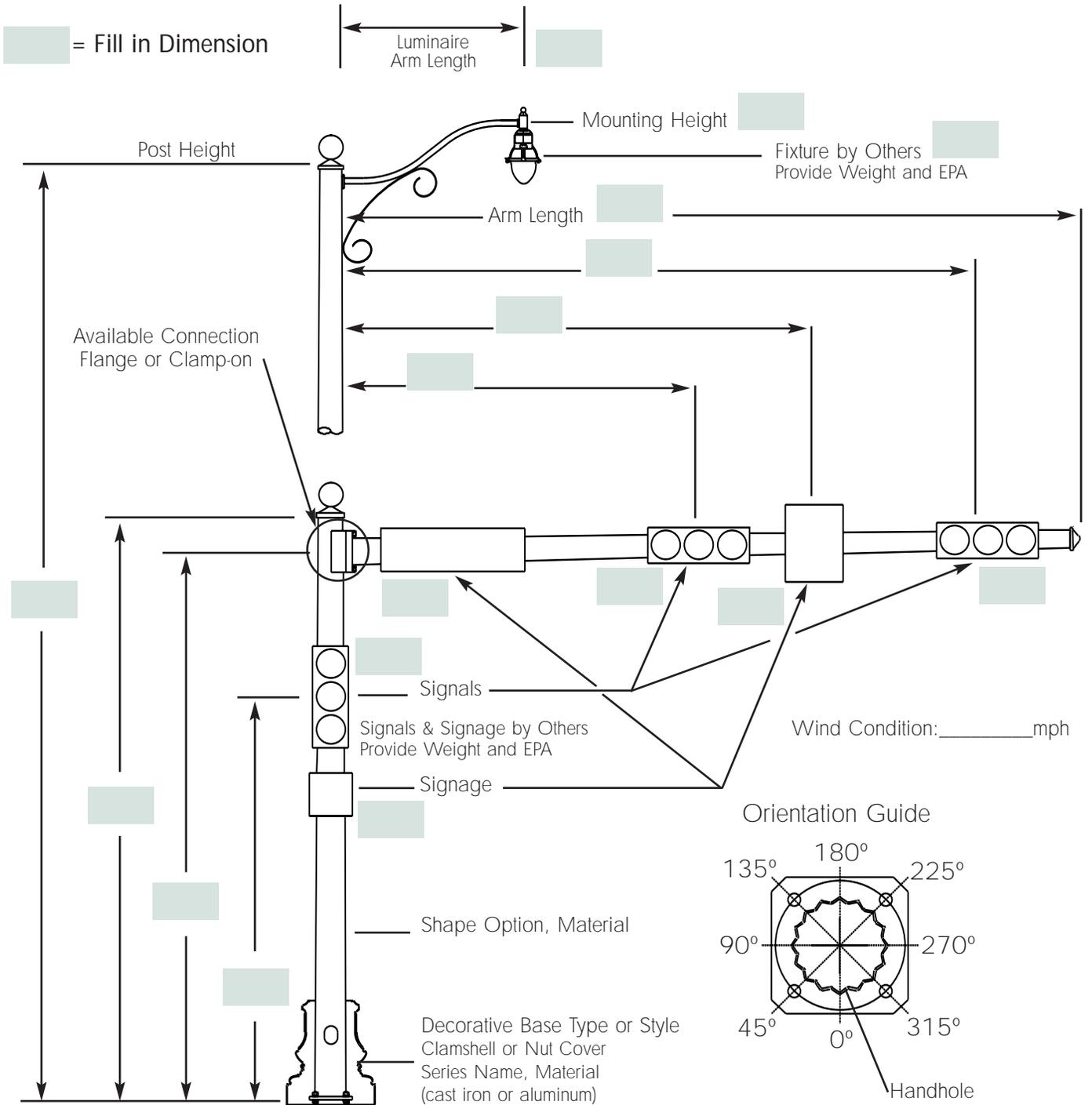
The finish shall be hot dip galvanized to ASTM A123 (in accordance with Valmont's F1 spec.), painted using TGIC polyester powder (in accordance with Valmont's F264 spec.), or provided with a combination coating using a TGIC polyester powder directly over hot dip galvanized (in accordance with Valmont's F283 spec.).

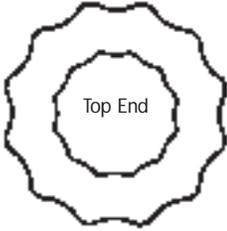
Calculations

Calculations, if required, shall include pole, mast arm, luminaire arm, base plate, and anchor bolt analysis. Tube drag coefficients shall be increased to include the effects of fluted shapes. Maximum loads and stresses shall be determined for the most critical wind direction. The pole shall be analyzed in its final deflected position, at the arm to pole connection(s) and pole base. Maximum arm and pole loads, stresses and combined stress ratios (CSR) shall be provided for the specified loading combinations, as well as maximum top of pole dead load rotation. Dead load stresses at welded connections shall be limited to 20 ksi. Shaft dimensions shall be equivalent in strength for the loads shown on the drawings.

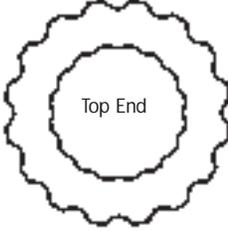
The following information is required to provide complete specifications for your project. This includes the gauge and diameter of the post shaft, the size of the base (determined by the shaft dia.) and the anchor bolt size. Please fill in the boxes below.

- Local Structural Code
- Local Wind Condition
- Shaft Type (shape)
- Base Series
- Finish Type (galv., powdercoat, powdercoat over galv.)
- Equipment Mounted to Post
 - Width X Length (projected area)
 - Weight
 - Location (height and orientation)
 - Signal EPA to be calculated with backplates, if required.

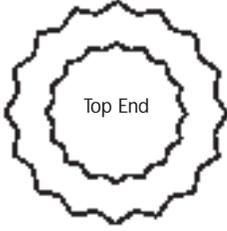




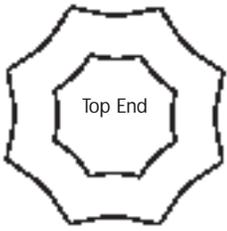
Base End
12-Flat Flute



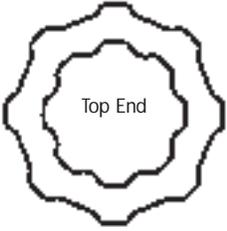
Base End
16-Flat Flute



Base End
16-Sharp Flute



Base End
8-Sharp Flute



Base End
8-Gear Tooth Flute





Valley, Nebraska, USA
Farmington, Minnesota, USA
Salem, Oregon, USA
Charmeil, France
Rive-De-Gier, France
Berrechid, Morocco

Commerce City, Colorado, USA
Elkhart, Indiana, USA
Selbyville, Delaware, USA
Siedlce, Poland
Maarheeze, the Netherlands
Chesterfield-Derbyshire, UK

Brenham, Texas, USA
Plymouth, Indiana, USA
St. Julie, Quebec, Canada
Gelsenkirchen, Germany
Shanghai, China



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As a leading manufacturer of structural lighting standards, Valmont offers the most complete and comprehensive group of standards in the industry. With production facilities strategically located, Valmont is in a unique position to provide outstanding services throughout the world.

Through our international support system, Valmont provides a highly technical and helpful sales force. In addition, Valmont's engineering and product development expertise continues to set the standards the industry uses as its benchmark.

This catalog is designed to assist you in describing and defining the lighting standard which will meet your requirements. The products listed within are the "backbone" of our street and area lighting standards. The variety of products which could be produced as an offspring of these core product lines is infinite. Valmont offers the best opportunities of providing your structural lighting requirements for non-standard products not listed in this catalog. Chances are that if you can imagine a lighting structure, Valmont can design and build it.

Valmont's people, including our agents, suppliers, and related partners, are dedicated individuals working together towards continuous improvement and leadership. We maintain our commitment in providing you with quality and service in every product manufactured.



Round Tapered Poles with Luminaire Arms



External and Internal Hinged Poles



Round Non-Tapered Poles



Tapered Poles



Fatigue Resistant Square Non-Tapered Poles



Round Tapered Low Level Lighting Poles

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Product Ordering Codes 4
Coating Specifications 5

Product Ordering Codes

POLE TYPE DESIGN SERIES

DS30/EM30/DS250

Round tapered roadway lighting pole with single member pipe arm assembly

DS32

Round tapered roadway lighting pole with single member tapered arm assembly

DS60/DS70

Round tapered roadway lighting pole with truss support pipe arm assembly

DS90

Round tapered roadway lighting pole with davit arm

DS210

Round tapered area lighting pole

DS220

Square tapered area lighting pole

DS330

Square non-tapered area lighting

DSF10/DSF15/DSF20/DSF35

Square hinged area lighting pole

DS200/DS201/DS202

Round tapered pedestal pole

DS340

Round non-tapered area lighting pole

DS30-660A300-4S-GV

Design Series

Nominal Shaft Base Diameter

Description is listed in decimal form with the decimal place always falling between the first two characters (e.g. 660=6.60" or 800=8.00")

When the base diameter reaches 10.0" or more, the first digit becomes an alpha character.

For example:

T=10"
E=11"
W=12"
H=13"

Also note example: (T50=10.50" Base Diameter)

Nominal Shaft Wall Thickness, Material Yield, & Cross Section

A=11 Gauge (0.1196"), 55KSI, Round Tapered

B=10 Gauge (0.1345"), 55KSI, Round Tapered

4=5 Gauge (0.2092"), 55KSI, Round Tapered

E=7 Gauge (0.1793"), 55KSI, Round Tapered

F=0.188" Tubing, 55KSI, Square Non-tapered

J=3 Gauge (0.2391"), 55KSI, Round Tapered

N=7 Gauge (0.1793"), 50KSI, Square Non-tapered

Q=11 Gauge (0.1196"), 55KSI, Square Non-tapered

V=0.120" Tubing, 42KSI, Round Non-tapered

W=7 Gauge (0.1793"), 55KSI, Square Non-tapered

Nominal Shaft Length

Description is listed as follows: The first two digits are measured in feet increments and the last digit is measured in inches. (e.g. 300=30'-0" or 389=38'-9")

Fixture Mounting Method or Luminaire Arm Length

STREET LIGHTING

Luminaire Arms:
The numeric digits describe the length of the arm. The alpha character describes the number of arms required per pole. (e.g. 4S=4' Single Arm or 8D=8' Double Arms or 6F=6' Quadruple Arms). Longer arms will require two digits and one alpha character.

S=Single
D=Double
T=Triple
F=Quadruple

AREA LIGHTING

Tenon Mounting:
P2=2.38" O.D. x 4.0"
P3=3.5" O.D. x 6.0"
P4=4.0" O.D. x 6.0"
P5=2.88" O.D. x 4.0"
PL=2.38" O.D. Plain Top
P9=Special Tenon Size (Advised by Customer)

Drill Mounting:
D1=Drilling for 1 Luminaire
D2=Drilling for 2 @ 180°
D3=Drilling for 3 @ 120°
D4=Drilling for 4 @ 90°
D5=Drilling for 2 @ 90°
D6=Drilling for 3 @ 90°

Finish Coatings

DB=Dark Bronze
MB=Medium Bronze
BK=Black
WH=White
GV=Galvanized
PP=Primed

Abbreviations for Standard and Optional Features:

HH=Handhole
PC=Pole Cap
FBC=Full Base Cover
NC=Nut Cover
M117=Festoon Box
AB=Anchor Bolts
LAB=Less Anchor Bolts

The above referenced abbreviations are input after the finish coating characters (e.g. -HH -AB -NC).

GALVANIZING

SURFACE PREPARATION

Prior to being incorporated into an assembled product, steel plates 3/4 inches or more in thickness may require blast cleaning to remove rolled-in mill scale, impurities and non-metallic foreign materials. After assembly, all weld flux shall be mechanically removed.

The iron or steel product is degreased by immersion in an agitated 4.5%-6% concentrated caustic solution elevated to a temperature ranging from 150°F-180°F. It is then pickled by immersion in a heated sulfuric acid solution of 10%-12% concentration, controlling the temperature between 150°F-160°F. It is next rinsed clean from any residual effects of the caustic or acid solutions by immersion in a circulating fresh water bath.

Final preparation is done by immersion in a concentrated zinc ammonium chloride flux solution heated to 170°F. The solution's acidity content is maintained between 4.5-5.0 pH.

ZINC COATING

The product is hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A153 (hardware items) by immersion in a molten bath of prime western grade zinc maintained between 810°F-850°F. Maximum aluminum content of the bath is controlled to 0.01%. Flux ash is skimmed from the bath surface prior to immersion and extraction of the product to assure a debris free zinc coating.

POWDER FINISH COAT

SURFACE PREPARATION

The exterior steel surface is blast cleaned to Steel Structures Painting Council Surface Preparation Specification No. 6 (SSPC-SP6) requirements utilizing cast steel abrasives conforming to the Society of Automotive Engineers (SAE) Recommended Practice J827. The blast method used is a re-circulating, closed cycle centrifugal wheel system with abrasive conforming to SAE Shot Number S280.

INTERIOR COATING

Interior surfaces (pole shafts only) at the base end for a length of approximately 2.0' are mechanically cleaned and coated with a zinc rich epoxy powder. The coating is electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350°F and a maximum of 400°F.

EXTERIOR COATING

All exterior surfaces are coated with either Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to a minimum dry film thickness of 2.0 mils (0.002") for urethane powder or 3.0 mils (0.003") for TGIC powder. The coating is electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350°F and a maximum of 400°F.

QUALITY

Thermosetting powder resin provides both intracoat as well as substrate fusing adhesion that meets 5A or 5B classifications (most stringent) of ASTM D3359. Prior to shipment small poles are wrapped in .188" thick ultraviolet inhibiting plastic backed foam. Larger poles are cradled in a 1.0" rubberized foam base.

POWDER PRIME COAT

SURFACE PREPARATION

The exterior steel surface is blast cleaned to Steel Structures Painting Council Surface Preparation Specification No.6 (SSPC-SP6) requirements utilizing cast steel abrasives conforming to the Society of Automotive Engineers (SAE) Recommended Practice J827. The blast method used is a re-circulating, closed cycle centrifugal wheel system with abrasive conforming to SAE Shot Number S280.

INTERIOR COATING

Interior surfaces (pole shafts only) at the base end for a length of approximately 2.0' are mechanically cleaned and coated with a zinc rich epoxy powder. The coating is electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350°F and a maximum of 400°F.

EXTERIOR COATING

All exterior surfaces are coated with a Urethane Polyester Powder to a minimum dry film thickness of 2.0 mils (0.002"). The coating is electrostatically applied and cured in a gas fired convection oven by heating the steel substrate to a minimum of 350°F and a maximum of 400°F.

QUALITY

Thermosetting powder resin provides both intracoat as well as substrate fusing adhesion that meets 5A or 5B classifications (most stringent) of ASTM D3359.

FIELD-APPLIED TOP COATING RECOMMENDATIONS

Top coats known to be compatible with the exterior coating are TNEMEC's Series 70 through 75 (or equal) two-component Aliphatic Polyurethane Enamels*. Prior to application, the exterior surfaces must be free of any contaminants such as grease, oil, dirt, etc. Appropriate solvents can be used to remove specific contaminants. Light sanding of exterior surfaces further enhance adhesion of the top coat.

*Other generic top coats must be field tested for compatibility.

Round Tapered Poles with Luminaire ArmProduct Specifications 9
DS30 Pole with low rise single member pipe arm10
EM30 Embedded pole with low rise single member pipe arm12
DS50 Pole with high rise single member pipe arm(s) (1& 2)14
DS250 . . . Pole with multiple high rise single member pipe arms (3 & 4) . .16
DS60 Pole with high rise two member (truss) pipe arm18
DS70 Pole with low rise two member (truss) pipe arm20
DS90 Pole with integral davit style arm22
DS32 Pole with single member tapered arm24

Round Tapered Poles with Luminaire Arms

DS30, EM30, DS50,
DS250, DS60, DS70,
DS90, DS32



ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with slotted bolt holes to accommodate a $\pm 0.5"$ variation in the nominal bolt circle.

POLE SHAFT

The pole shaft conforms to ASTM A595 Grade-A and is supplied in 11 gauge (0.1196") or 10 gauge (0.1345") thickness. The pole is of one-piece construction with a full length longitudinal high frequency electric resistance weld and is round in cross-section having a uniform taper of approximately 0.14 inches per foot of length.

HANDHOLE

The reinforcing handhole rim consists of either a nominal 3" x 5" rectangular shaped tubing or 4" x 6.5" oval shaped pipe material. The 3" x 5" handhole is provided with a steel attachment bar, steel cover, and one round head machine screw. The 4" x 6.5" handhole includes two tabs for mounting a steel cover with hex head attachment screws. The handhole is welded into the pole shaft and is located 1'-6" above the base and 90°clockwise with respect to the luminaire arm when viewed from the top of the pole for one and two arm applications. For three arms (120-degree separation) the handhole is oriented directly under the arm which is perpendicular to a side of the base plate. In the four arm application the handhole is oriented directly under any arm, all of which are perpendicular to the sides of the base plate.

ELECTRICAL GROUND

A nut holder is provided near the handhole and includes a 0.5"-13UNC hex head bolt and nut.

UNDERGROUND WIRING ACCESS (EM30 SERIES ONLY)

A 1" diameter hole is provided in the pole shaft to facilitate wiring access. The hole is located at 1'-0" below the ground line and 90°clockwise with respect to the luminaire arm when viewed from the top of the pole.

NUT COVERS (STANDARD)

Nut covers for anchor bolts are zinc die cast. Each cover is fastened to the shaft by a 0.25" stainless steel, self-tapping, hex head screw. Nut covers are not available for the EM30 series.

FULL BASE COVER (OPTIONAL)

The optional full base cover is fabricated from ABS plastic. Valmont reserves the right to provide a steel assembly on some applications depending upon the finish requirement and/or pole shaft base diameter. Both steel and plastic covers are a two-piece assembly secured together with two fasteners.

LUMINAIRE ARM

DS30, DS50, DS60, DS70, EM30, AND DS250 luminaire arms are made from 2 inch schedule 40 pipe (2.38" O.D.) with a minimum yield strength of 36,000 psi. DS32 and DS90 luminaire arms are made from ASTM A595 Grade-A material and are supplied in 11 gauge (0.1196") thickness.

MULTIPLE ARMS

Twin luminaire arm applications are oriented at 180°with respect to each other. For applications of two arms which are oriented other than 180°please consult Valmont.

LUMINAIRE ARM ATTACHMENT

The DS30, EM30, DS50, and DS250 pole and mating arm simplex components are cast steel. They are welded to their respective members and will allow the luminaire arm to be erected and held in place by gravity while being secured with a single 0.5"-13 UNC high strength hex head hub bolt. The attachment provides an internal weather resistant wiring raceway.

The DS32 arm and pole simplex plates are fabricated from structural quality hot rolled carbon steel conforming with ASTM A36 material, each welded to its respective member. Three 0.75"-10 UNC high strength structural hex head bolts are used to connect the arm to the pole. The attachment provides an internal weather resistant wiring raceway.

The DS60 and DS70 pole and mating arm simplex components are cast steel. They are welded to their respective members and will allow the luminaire arm to be erected and held in place by gravity while being secured with four 0.5"-13 UNC high strength hex head bolts. The attachment provides an internal weather resistant wiring raceway.

POLE TOP CAP

Each pole assembly is provided with a removable pole top cap and three set screws.

FINISH COATINGS

Standard finishes available are galvanized, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

MOUNTING HEIGHT

Mounting height is a nominal vertical distance as measured from the base of the lighting standard to the center of the luminaire arm at the point of luminaire attachment.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by 100 mph winds with a 1.3 gust factor (also meets ice load criteria up to 0.5" thick) under the following conditions, unless noted otherwise in the tables.

The luminaire mounted on each arm shall not exceed an effective projected area of 2.0 square feet, including any external ballast, glare shield or other luminaire accessories. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient. The drag coefficient used for luminaires is taken as 0.6 and the actual projected area of the luminaire as 3.3 square feet for the designs shown herein.

The luminaire center of gravity is assumed to be located 1'-0" beyond the nominal arm spread. Standards are designed for ground mounted applications. Standards mounted on structures, such as bridges and buildings, may necessitate special consideration requiring Valmont's recommendation.

Standards to be located in areas of known abnormal conditions also require special consideration. For example, coastal areas, airports, and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard.

Under single arm loading conditions, a relatively straight appearing standard is an important aesthetic consideration. To control the appearance of the standards under deadload conditions, a limiting slope criterion of 0.35 inches per foot of shaft length (1 degree 40 minutes of angular rotation) is applied at the point of attachment.

Single Pipe Luminaire Arm

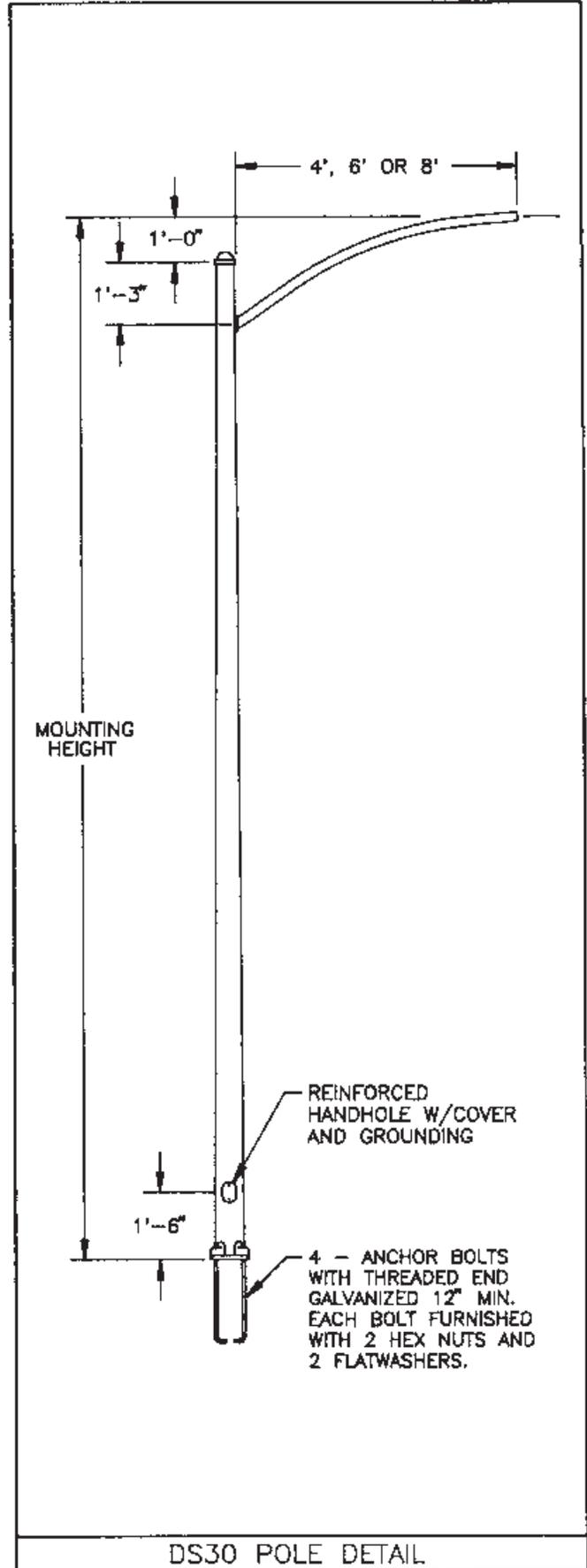
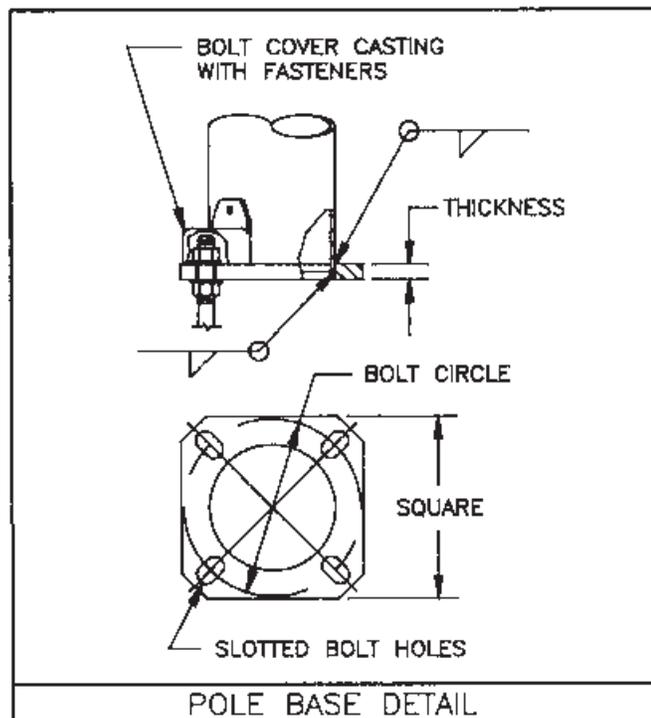
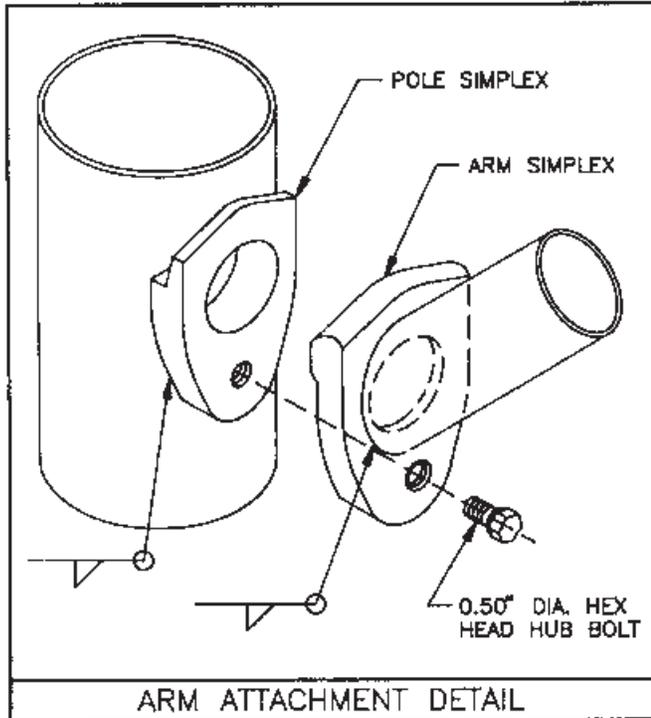
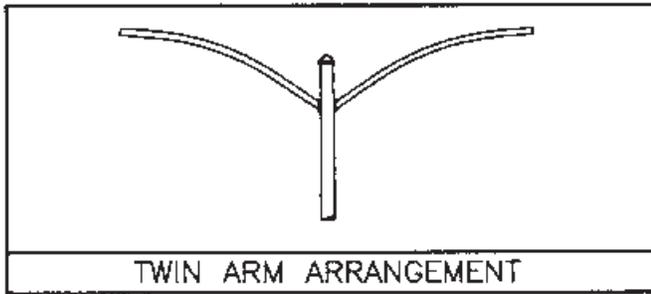
Nominal Mounting Height (ft)	Shaft				Arm		Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Max. Lgth. (ft)	Max. Lum. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)
							Dia. (in)	± (in)		
21	**590A200	5.9	3.1	175	8	75	9.0	.5	10.00	0.88
26	**590A250	5.9	2.4	175	4	75	9.0	.5	10.00	0.88
	**590A250	5.9	2.4	180	6	72	9.0	.5	10.00	0.88
	**590A250	5.9	2.4	190	8	51	9.0	.5	10.00	0.88
31	660A300	6.6	2.4	220	4	75	9.5	.5	10.50	0.88
	660A300	6.6	2.4	225	6	59	9.5	.5	10.50	0.88
	660A300	6.6	2.4	235	8	48	9.5	.5	10.50	0.88
36	730A350	7.3	2.4	265	4	75	10.5	.5	11.25	0.88
	730A350	7.3	2.4	270	6	67	10.5	.5	11.25	0.88
	730A350	7.3	2.4	280	8	40	10.5	.5	11.25	0.88
	850A350	8.5	3.6	345	8	75	11.5	.5	12.00	1.00
40	900A389	9.0	3.6	390	8	75	12.5	.5	12.38	1.00

Twin Pipe Luminaire Arms

Nominal Mounting Height (ft)	Shaft				Arm		Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Max. Lgth. (ft)	Max. Lum. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)
							Dia. (in)	± (in)		
21	**590A200	5.9	3.1	210	8	75	9.0	.5	10.00	0.88
26	**590A250	5.9	2.4	225	8	75	9.0	.5	10.00	0.88
31	660A300	6.6	2.4	270	8	75	9.5	.5	10.50	0.88
36	730A350	7.3	2.4	315	8	75	10.5	.5	11.25	0.88
40	900A389	9.0	3.6	425	8	75	12.5	.5	12.38	1.00

DS30 NOTES:

1. A¹ designs utilize 1" x 36" x 4" anchor bolts.
2. A¹ designs utilize 1" gauge material (.1196").
3. **3' x 5' nominal handhole - all others 4' x 6.5' nominal.
4. Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.
5. A¹ designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0.
6. **Special Note:** Maximum luminaire weights vary per design.



Single Pipe Luminaire Arm

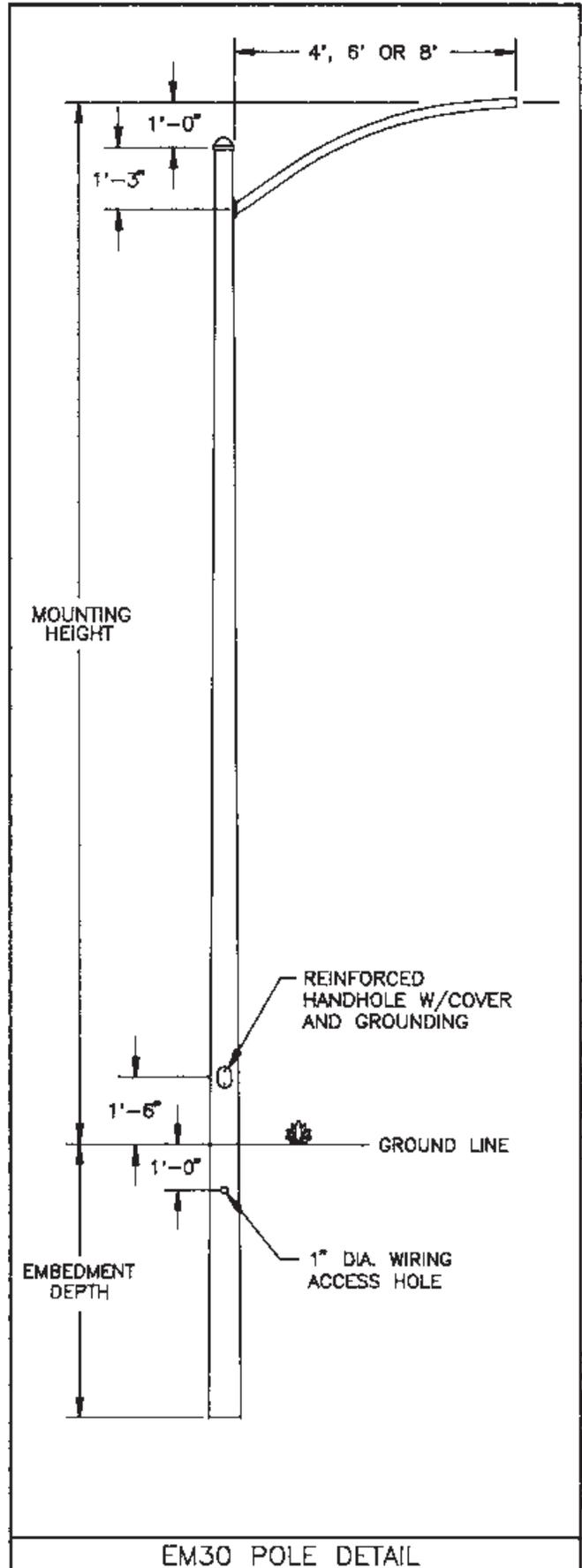
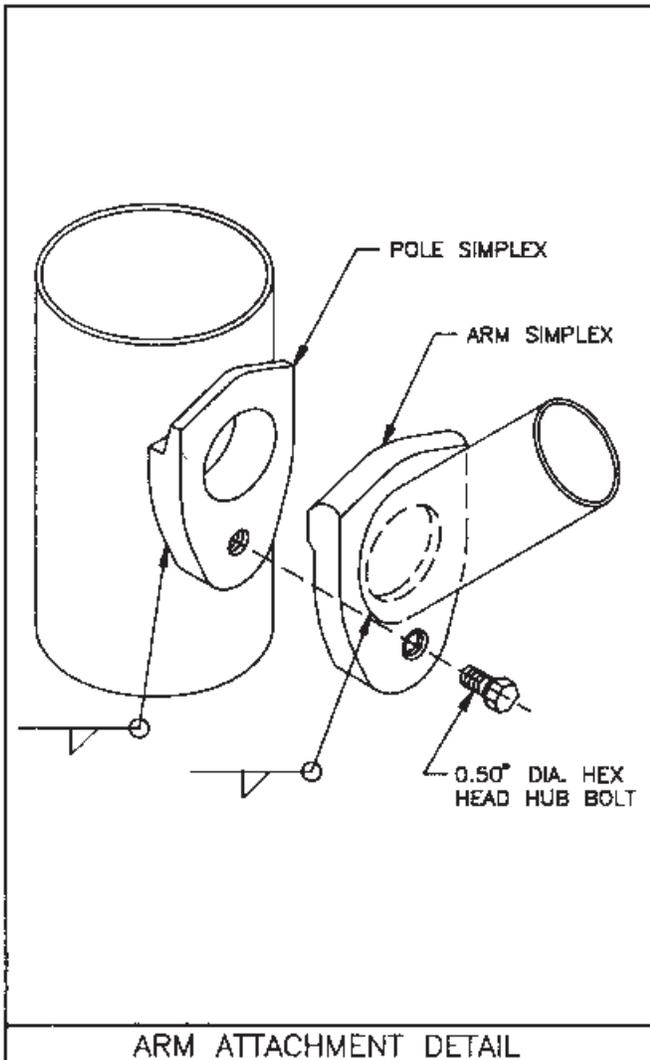
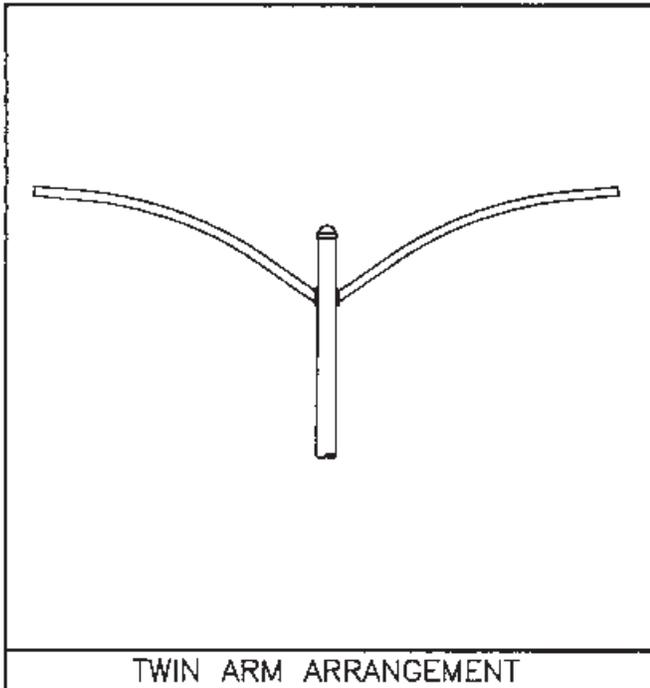
Nominal Mounting Height (ft)	Shaft				Embedment		Arm	
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Ground Line Dia. (in)	Embed. Depth (ft)	Max. Lgth. (ft)	Max. Weight (lbs)
21	**590A250	5.9	2.4	160	5.2	5	4	75
	**590A250	5.9	2.4	163	5.2	5	6	60
	**590A250	5.9	2.4	170	5.2	5	8	44
	**700A250	7.0	3.5	215	6.3	5	8	75
26	**660A300	6.6	2.4	205	5.9	5	4	75
	**660A300	6.6	2.4	210	5.9	5	6	72
	**660A300	6.6	2.4	220	5.9	5	8	42
	800A300	8.0	3.8	275	7.3	5	8	75
31	730A350	7.3	2.4	250	6.6	5	4	75
	730A350	7.3	2.4	255	6.6	5	6	50
	730A350	7.3	2.4	265	6.6	5	8	35
	900A350	9.0	4.1	350	8.3	5	8	75
36	950A420	9.5	3.6	410	8.5	7	8	75
40	T00A460	10.0	3.6	460	9.0	7	8	75

Twin Pipe Luminaire Arms

Nominal Mounting Height (ft)	Shaft				Embedment		Arm	
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Ground Line Dia. (in)	Embed. Depth (ft)	Max. Lgth. (ft)	Max. Weight (lbs)
21	**590A250	5.9	2.4	210	5.2	5	8	75
	**700A250	7.0	3.5	250	6.3	5	8	75
26	**660A300	6.6	2.4	250	5.9	5	8	75
	800A300	8.0	3.8	310	7.3	5	8	75
31	730A350	7.3	2.4	300	6.6	5	8	75
	900A350	9.0	4.1	385	8.3	5	8	75
36	950A420	9.5	3.6	445	8.5	7	8	75
40	T00A460	10.0	3.6	495	9.0	7	8	75

EM30 NOTES:

1. A designs utilize 11 gauge material (.1196")
2. ** 3" x 5" nominal handhole, all others 4' x 6.5" nominal.
3. Structure weight is a nominal value which includes the pole shaft and luminaire arm only.
4. All designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0.
5. **SPECIAL NOTE:** Maximum luminaire weights vary per design.



Single Pipe Luminaire Arm

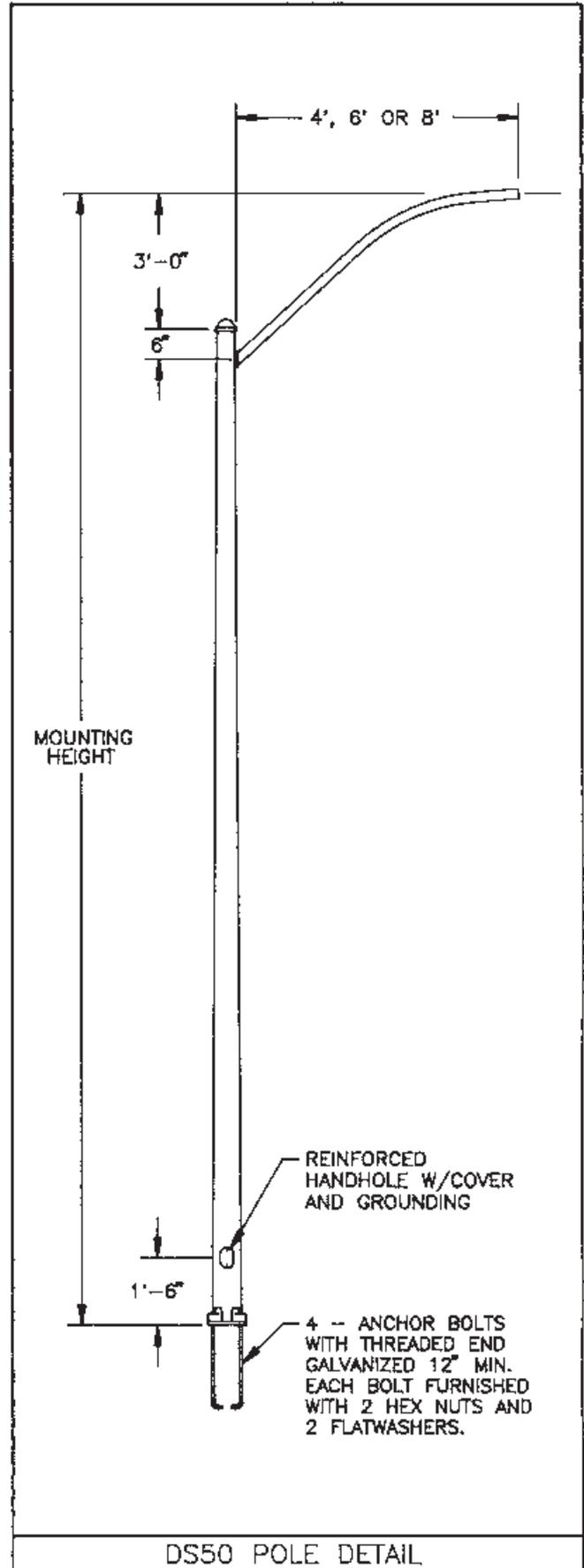
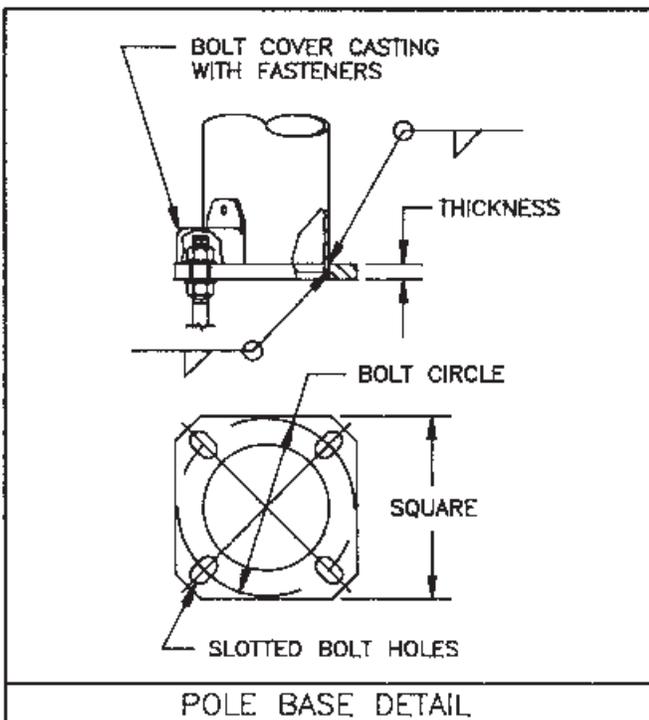
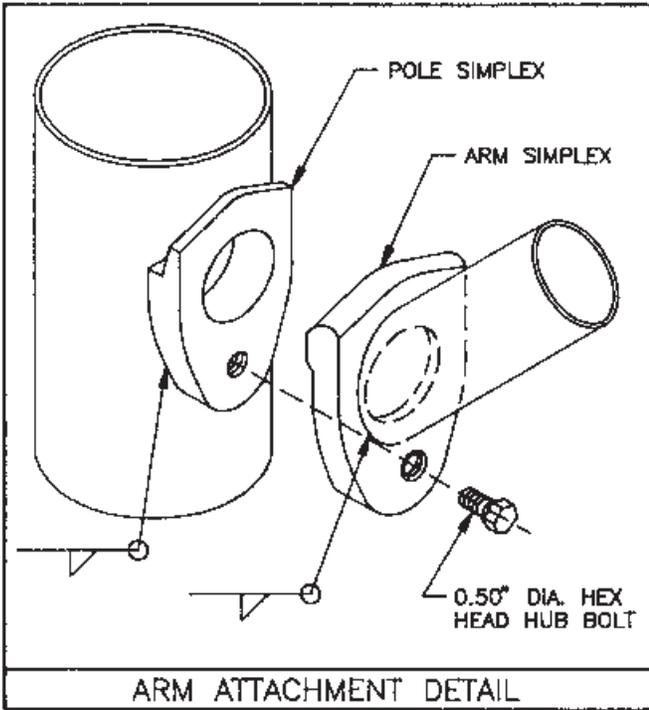
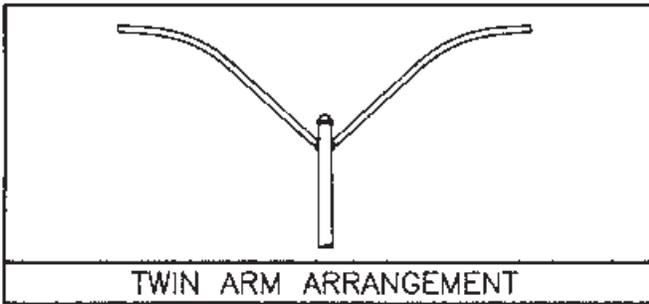
Nominal Mounting Height (ft)	Shaft				Arm		Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Max. Lgth. (ft)	Max. Lum. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)
							Dia. (in)	± (in)		
20	**590A170	5.9	3.5	160	8	75	9.00	.5	10.00	0.88
	650A170	6.5	4.1	180	8	75	9.50	.5	10.50	0.88
25	**590A220	5.9	2.8	185	8	75	9.00	.5	10.00	0.88
	700A220	7.0	3.9	220	8	75	10.00	.5	10.88	0.88
30	660A270	6.6	2.8	230	6	75	9.50	.5	10.50	0.88
	660A270	6.6	2.8	232	8	68	9.50	.5	10.50	0.88
	750A270	7.5	3.7	260	8	75	10.50	.5	11.25	0.88
32	660A296	6.6	2.5	231	4	75	9.50	.5	10.50	0.88
	660A296	6.6	2.5	233	6	66	9.50	.5	10.50	0.88
	660A296	6.6	2.5	235	8	45	9.50	.5	10.50	0.88
	800A296	8.0	3.9	295	8	75	11.00	.5	11.50	0.88
35	730A320	7.3	2.8	273	6	75	10.50	.5	11.25	0.88
	730A320	7.3	2.8	275	8	65	10.50	.5	11.25	0.88
	800A320	8.0	3.5	310	8	75	11.00	.5	11.50	0.88
40	900A370	9.0	3.8	385	8	75	12.50	.5	12.38	1.00
45	950A420	9.5	3.6	440	8	75	13.00	.5	13.00	1.00

Twin Pipe Luminaire Arms

Nominal Mounting Height (ft)	Shaft				Arm		Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)	Max. Lgth. (ft)	Max. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)
							Dia. (in)	± (in)		
20	**590A170	5.9	3.5	200	8	75	9.00	.5	10.00	0.88
25	**590A220	5.9	2.8	220	8	75	9.00	.5	10.00	0.88
	700A220	7.0	3.9	255	8	75	10.00	.5	10.88	0.88
30	660A270	6.6	2.8	265	6	75	9.50	.5	10.50	0.88
	750A270	7.5	3.7	300	8	75	10.50	.5	11.25	0.88
32	660A296	6.6	2.5	275	8	75	9.50	.5	10.50	0.88
	800A296	8.0	3.9	335	8	75	11.00	.5	11.50	0.88
35	730A320	7.3	2.8	315	8	75	10.50	.5	11.25	0.88
	800A320	8.0	3.5	345	8	75	11.00	.5	11.50	0.88
40	900A370	9.0	3.8	420	8	75	12.50	.5	12.38	1.00
45	950A420	9.5	3.6	480	8	75	13.00	.5	13.00	1.00

DS50 NOTES:

- All designs utilize 1" x 36" x 4" anchor bolts.
- All designs utilize 11 gauge material (.1196").
- ** 3" x 5' nominal handhole - all others 4" x 6.5' nominal.
- Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.
- A' designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0
- SPECIAL NOTE:** Maximum luminaire weights vary per design.



Three Pipe Luminaire Arms @ 120°

80 MPH w/1.3 Gust Factor

Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
30	750A270	7.5	3.7	330	8	10.5	.5	11.25	0.88
32	800A296	8.0	3.9	360	8	11.0	.5	11.50	0.88
35	800A320	8.0	3.5	375	8	11.0	.5	11.50	0.88
40	900A370	9.0	3.8	500	8	12.5	.5	12.38	1.00

100 MPH w/1.3 Gust Factor

Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
30	750A270	7.5	3.7	330	8	10.5	.5	11.25	0.88
32	800A296	8.0	3.9	360	8	11.0	.5	11.50	0.88
35	850A320	8.5	4.0	415	8	11.5	.5	12.00	1.00
40	950A370	9.5	4.3	500	8	13.0	.5	13.00	1.00

Four Pipe Luminaire Arms @ 90°

80 MPH w/1.3 Gust Factor

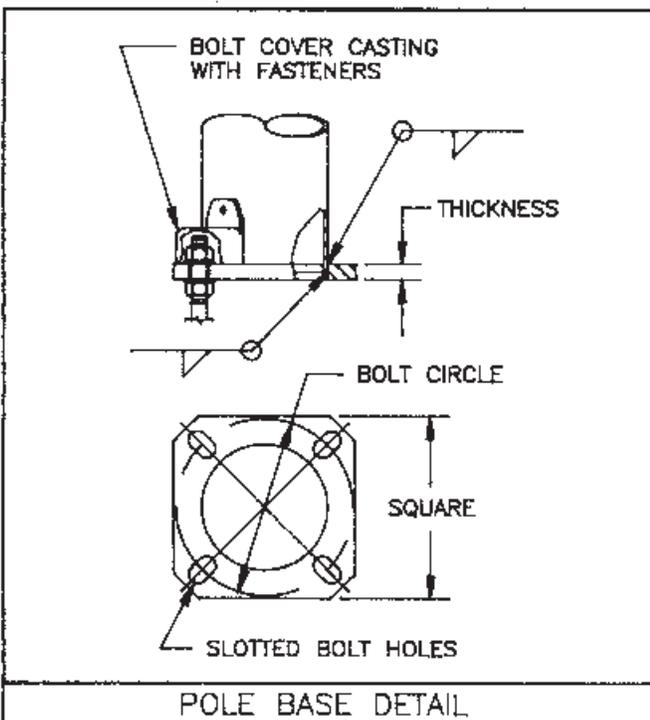
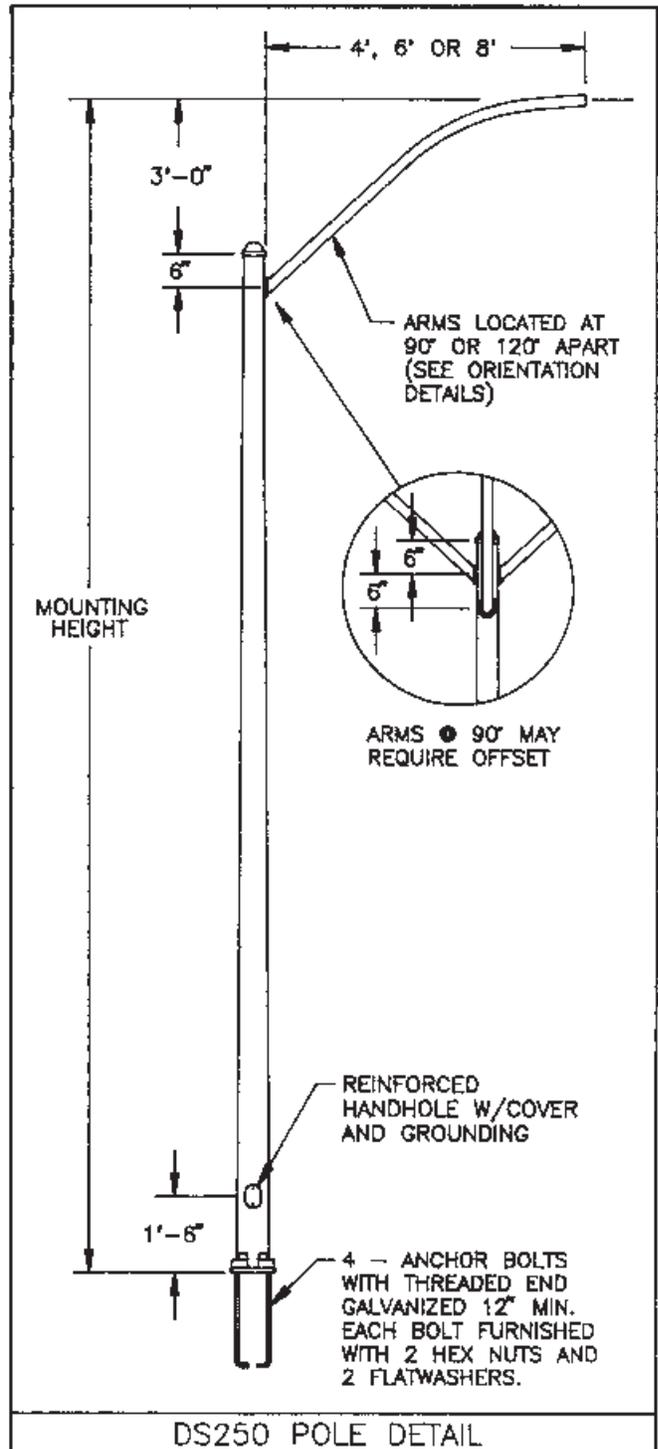
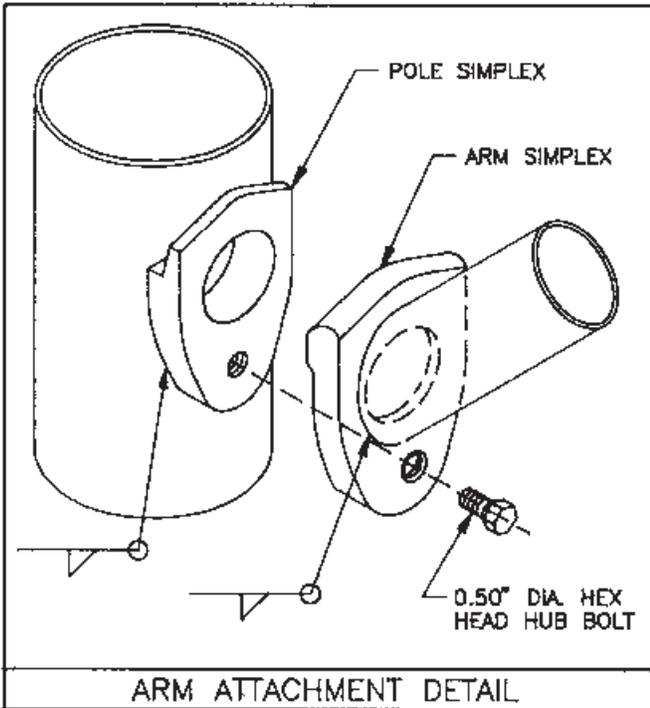
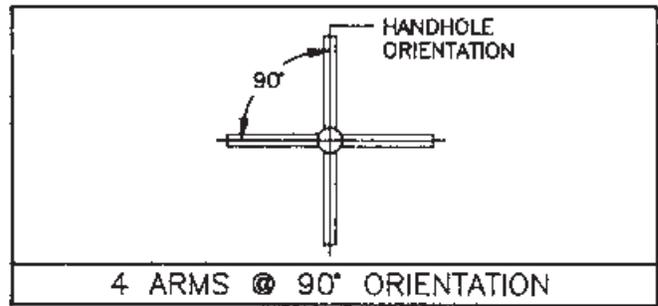
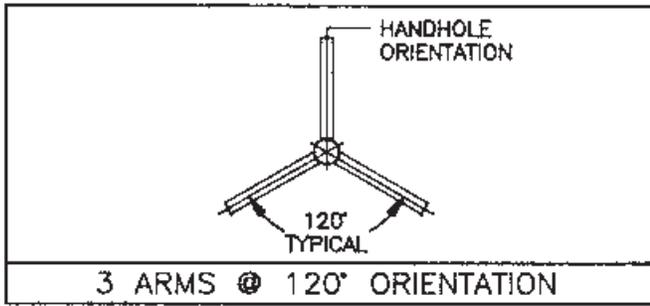
Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
30	750A270	7.5	3.7	365	8	10.5	.5	11.25	0.88
32	800A296	8.0	3.9	395	8	11.0	.5	11.50	0.88
35	800A320	8.0	3.5	410	8	11.0	.5	11.50	0.88
40	900A370	9.0	3.8	535	8	12.5	.5	12.38	1.00

100 MPH w/1.3 Gust Factor

Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
30	800A270	8.0	4.2	380	8	11.0	.5	11.50	0.88
32	900A296	9.0	4.9	455	8	12.5	.5	12.38	1.00
35	950A320	9.5	5.0	485	8	13.0	.5	13.00	1.00
40	T00A370	10.0	4.8	545	6	13.5	.5	14.00	1.00

DS250 NOTES:

1. All designs utilize 1.00" x 36" x 4" anchor bolts.
2. All designs utilize 11 gauge material (.1196").
3. All designs provided with 4" x 6.5" nominal handhole.
4. Maximum luminaire EPA and weight per arm is 2.0 ft² and 75 lbs.
5. Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.



Single Pipe Luminaire Arm

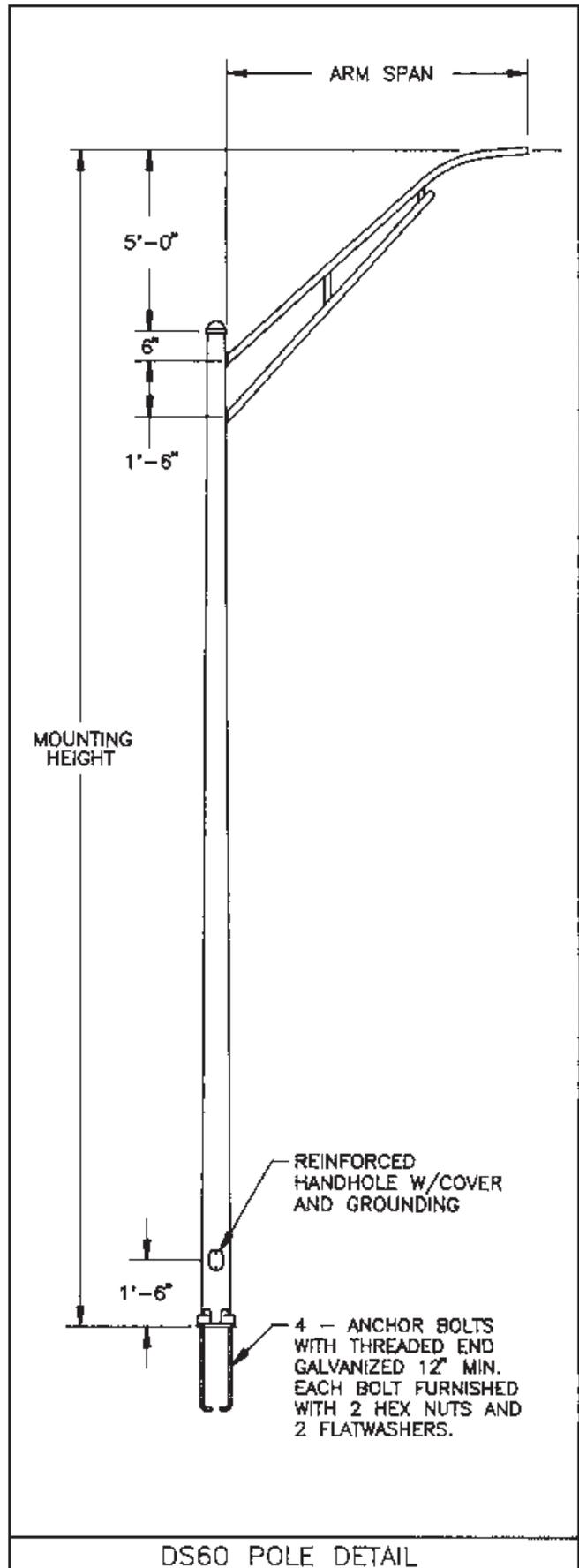
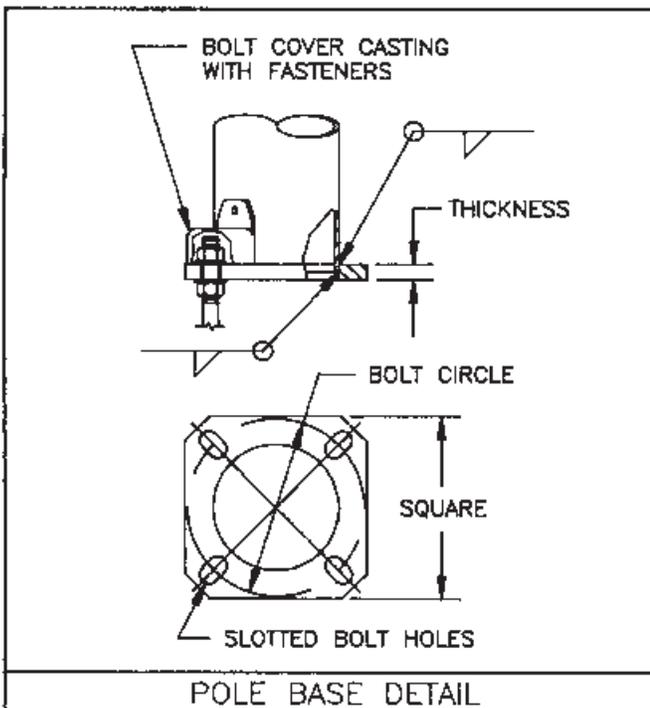
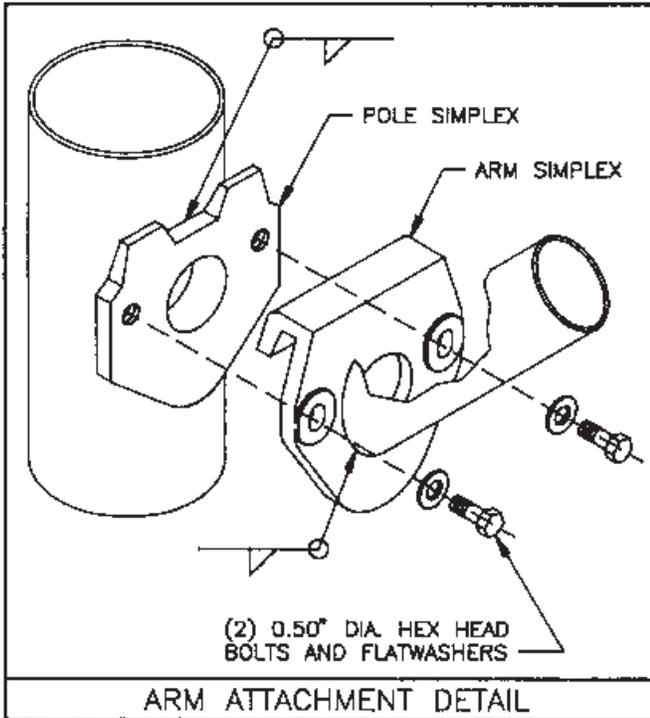
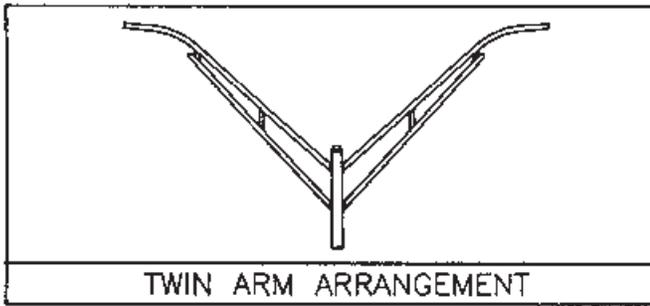
Nominal Mounting Height (Ft.)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
		Dia. (in)	± (in)						
25	650A200	6.5	3.7	280	12	9.5	.5	10.50	0.88
	700A200	7.0	4.2	300	15	10.0	.5	10.88	0.88
30	700A250	7.0	3.5	320	12	10.0	.5	10.88	0.88
	● 750A250	7.5	4.0	338	15	10.5	.5	11.25	0.88
35	800A300	8.0	3.8	385	12	11.0	.5	11.50	0.88
	● 850A300	8.5	4.3	410	15	11.5	.5	12.00	1.00

Twin Pipe Luminaire Arms

Nominal Mounting Height (Ft.)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
		Dia. (in)	± (in)						
25	650A200	6.5	3.7	395	12	9.5	.5	10.50	0.88
	700A200	7.0	4.2	415	15	10.0	.5	10.88	0.88
30	700A250	7.0	3.5	435	10	10.0	.5	10.88	0.88
	750A250	7.5	4.0	455	12	10.5	.5	11.25	0.88
	● 800A250	8.0	4.5	460	15	11.0	.5	11.50	0.88
35	800A300	8.0	3.8	500	10	11.0	.5	11.50	0.88
	850A300	8.5	4.3	520	12	11.5	.5	12.00	1.00
	● 850A300	8.5	4.3	525	15	11.5	.5	12.00	1.00

DS60 NOTES:

1. All designs utilize 1" x 36" x 4" anchor bolts.
2. A' designs utilize 11 gauge material (.1196").
3. A' designs provided with 4" x 6.5" nominal handhole.
4. Maximum luminaire weight is 75 lbs per arm.
5. ● - Designed to 90 mph w/1.3 gust. Consult Valmont for higher wind speed designs. All other designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0.
6. Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.



Single Pipe Luminaire Arm

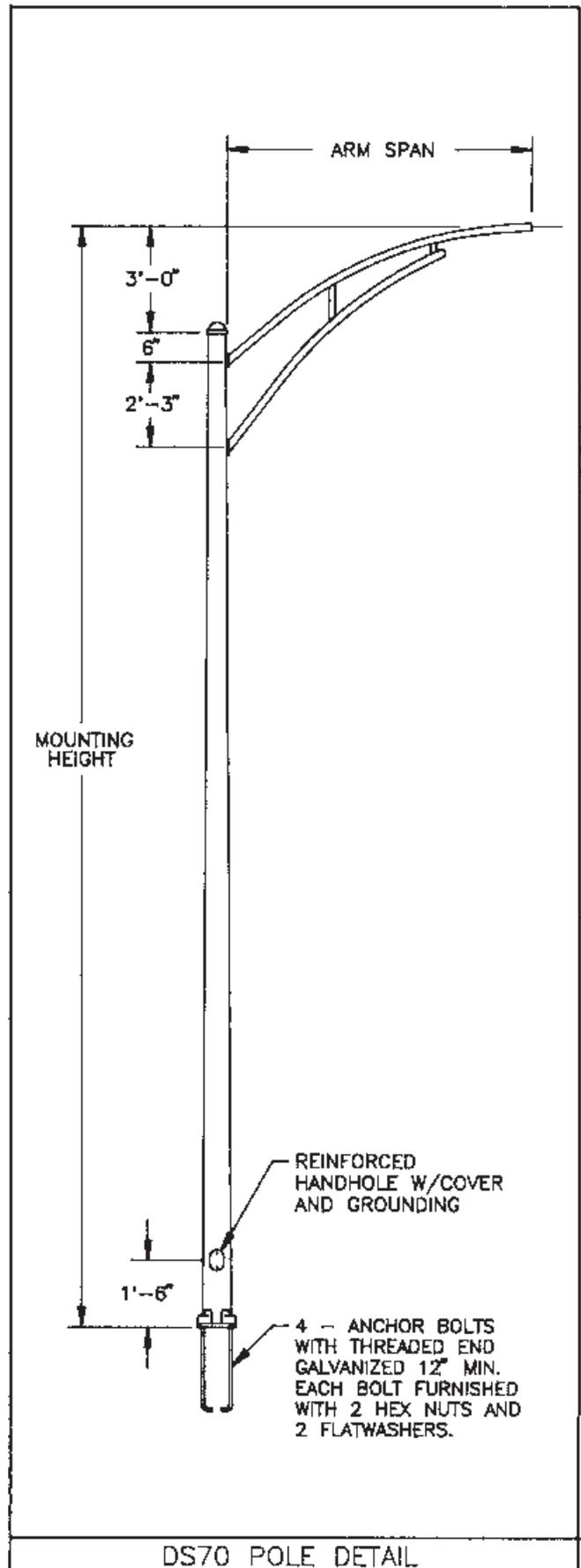
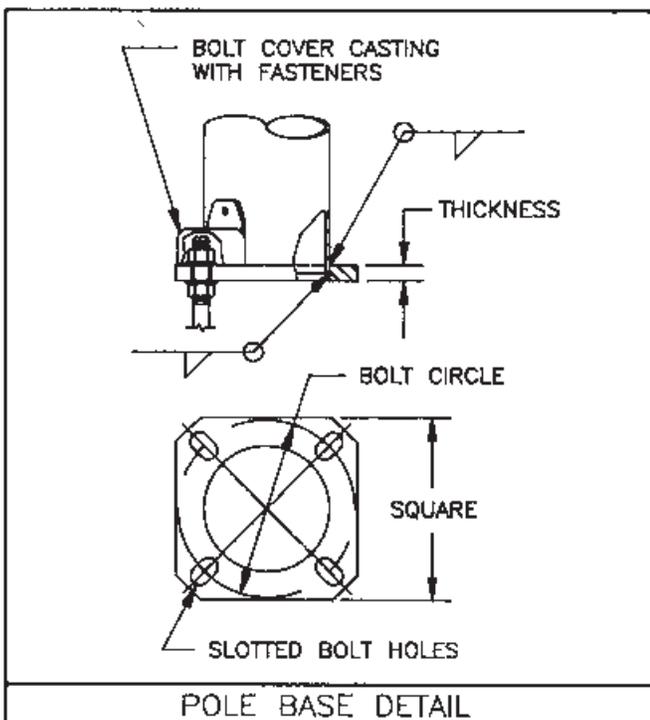
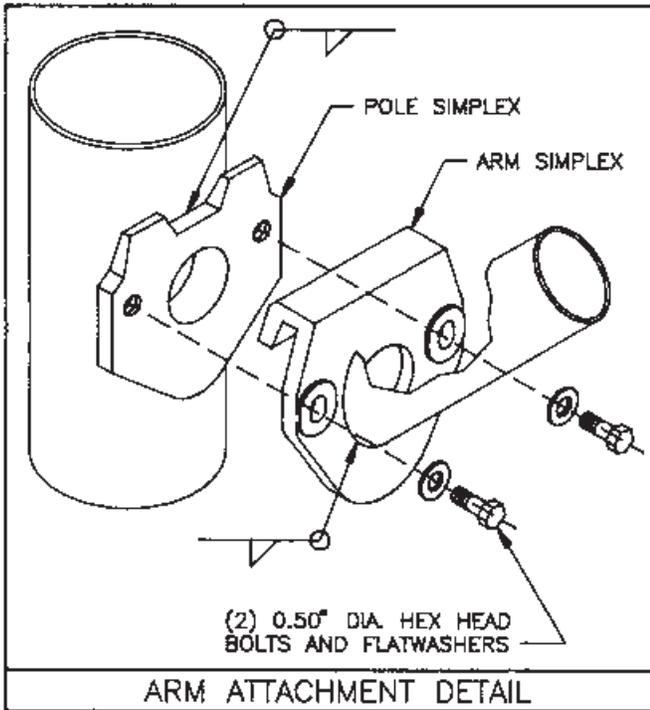
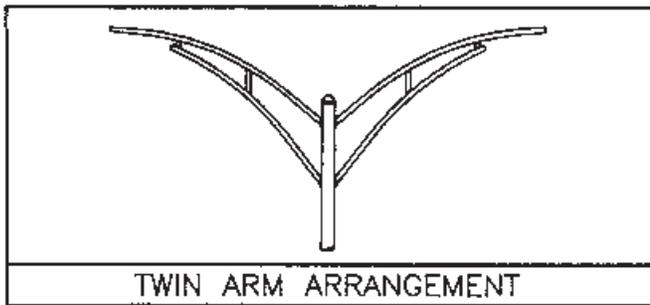
Nominal Mounting Height (Ft.)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
25	700A220	7.0	3.9	295	15	10.0	.5	10.88	0.88
	750A270	7.5	3.7	345	12	10.5	.5	11.25	0.88
30	800A270	8.0	4.2	370	15	11.0	.5	11.50	0.88
	800A320	8.0	3.5	375	10	11.0	.5	11.50	0.88
35	850A320	8.5	4.0	405	12	11.5	.5	12.00	1.00
	900A320	9.0	4.5	445	15	12.5	.5	12.38	1.00
40	900A370	9.0	3.8	450	12	12.5	.5	12.38	1.00
	950A370	9.5	4.3	510	15	13.0	.5	13.00	1.00

Twin Pipe Luminaire Arms

Nominal Mounting Height (Ft.)	Shaft				Arm Max. Lgth. (ft)	Pole Base			
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)
						Dia. (in)	± (in)		
25	700A220	7.0	3.9	385	15	10.0	.5	10.88	0.88
30	750A270	7.5	3.7	445	12	10.5	.5	11.25	0.88
	800A270	8.0	4.2	490	15	11.0	.5	11.50	0.88
35	800A320	8.0	3.5	465	10	11.0	.5	11.50	0.88
	850A320	8.5	4.0	500	12	11.5	.5	12.00	1.00
40	900A320	9.0	4.5	560	15	12.5	.5	12.38	1.00
	900A370	9.0	3.8	565	10	12.5	.5	12.38	1.00
40	950A370	9.5	4.3	630	12	13.0	.5	13.00	1.00
	T00A370	10.0	4.8	665	15	13.5	.5	14.00	1.00

DS70 NOTES:

1. All designs utilize 1" x 36" x 4" anchor bolts.
2. All designs utilize 11 gauge material (1196).
3. All designs provided with 4' x 6.50" nominal handhole
4. Maximum luminaire weight is 75 lbs per arm
5. All designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0.
6. Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.



Single Davit Arm

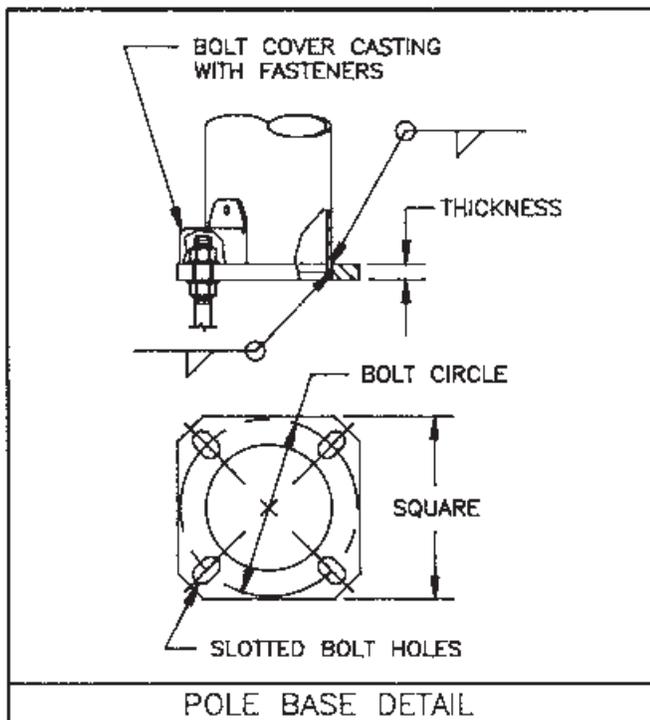
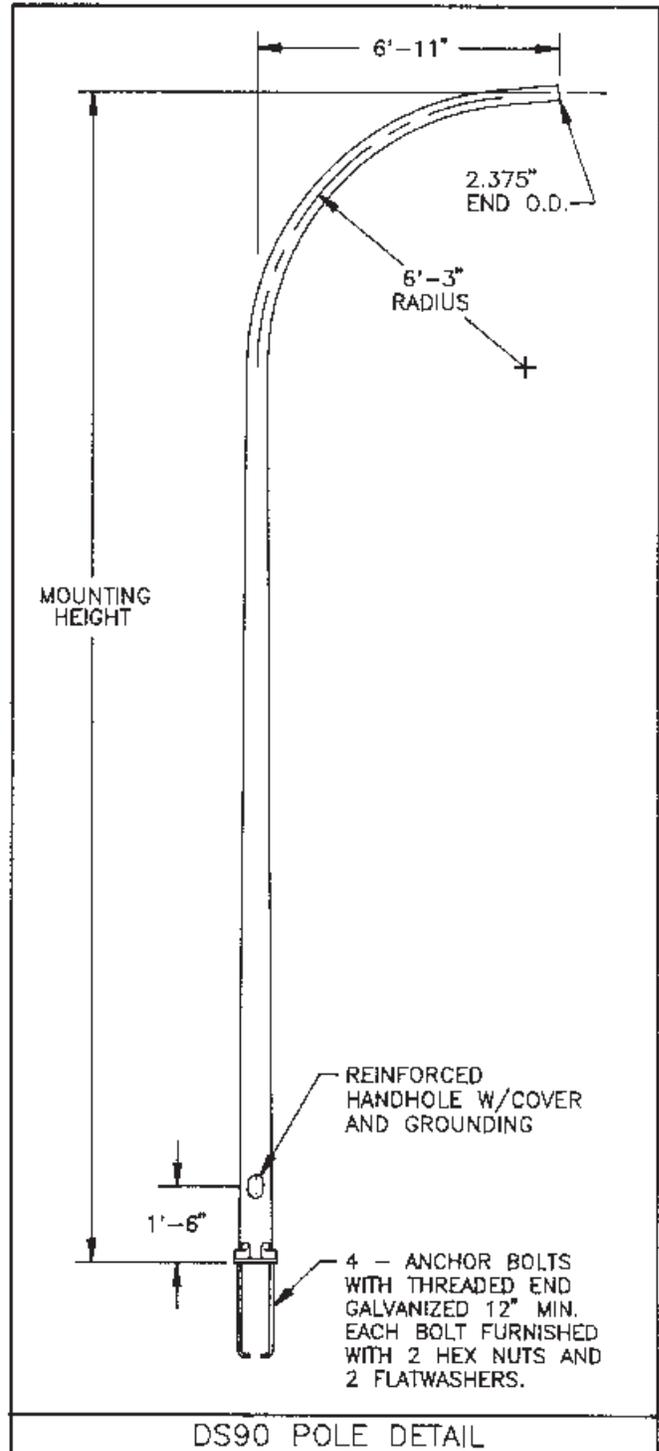
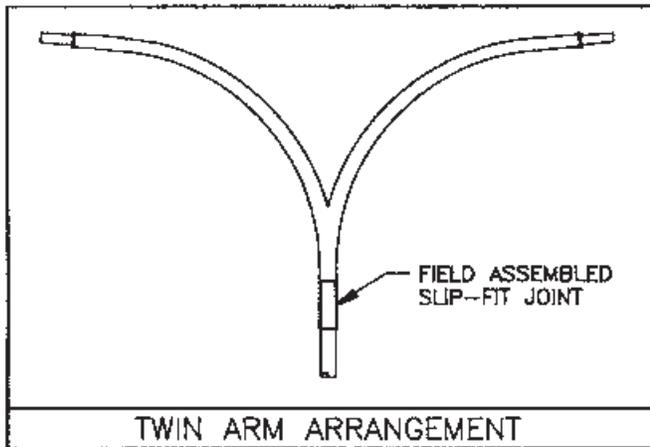
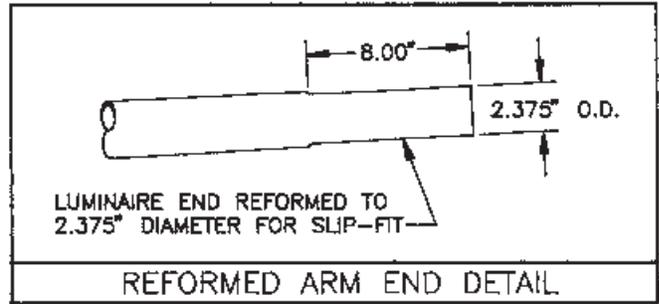
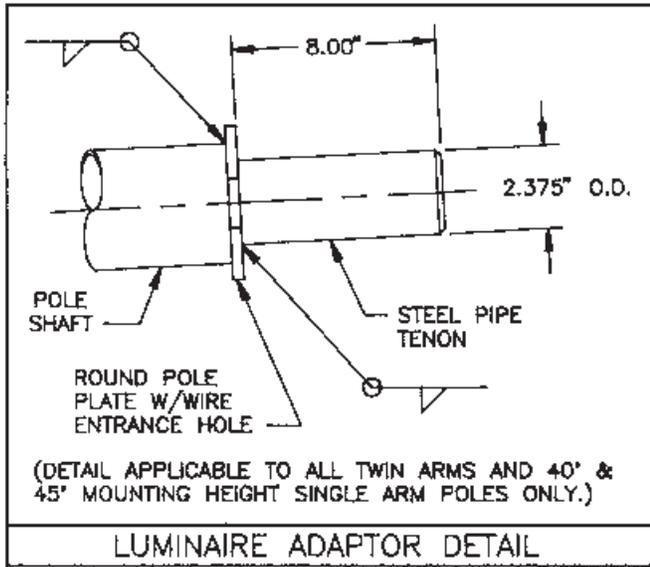
Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base				Anchor Bolts Dia. x Lngth. x Hk. (in)
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)	
						Dia. (in)	± (in)			
25	643A28T	6.4	2.4	195	6.5	9.5	.5	10.50	0.88	1 x 36 x 4
30	713A33T	7.1	2.4	235	6.5	10.0	.5	10.88	0.88	1 x 36 x 4
35	782A389	7.8	2.4	290	6.5	11.0	.5	11.50	0.88	1 x 36 x 4
40	950A436	9.5	3.4	410	6.5	13.0	.5	13.00	1.00	1 x 36 x 4

Twin Davit Arms (Two Piece)

Nominal Mounting Height (ft)	Shaft				Arm Max. Lgth. (ft)	Pole Base				Anchor Bolts Dia. x Lngth. x Hk. (in)
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)	
						Dia. (in)	± (in)			
25	750A286	7.5	3.8	320	6.5	10.5	.5	11.25	0.88	1 x 36 x 4
30	800A336	8.0	3.6	370	6.5	11.0	.5	11.50	0.88	1 x 36 x 4
35	900A386	9.0	3.9	450	6.5	12.5	.5	12.38	1.00	1 x 36 x 4
40	950A436	9.5	3.4	495	6.5	13.0	.5	13.00	1.00	1 x 36 x 4

DS90 NOTES:

- All designs utilize 11 gauge material (.1196")
- All poles provided with 4" x 6.5" nominal handhole.
- Maximum luminaire weight is 75 lbs. per arm.
- All twin davits are provided as a two-piece field-assembly unit.
- Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.
- All designs based on a 100 mph wind speed with 1.3 gust factor and maximum luminaire EPA of 2.0



Single Tapered Luminaire Arm

Nominal Mounting Height (ft)	Shaft				Arm Max. Lngth. (ft)	Pole Base				Anchor Bolts Dia. x Lngth. x Hk. (in)
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)	
						Dia. (in)	± (in)			
30	750A286	7.5	3.5	295	8	10.5	.5	11.25	0.88	1.00 x 36 x 4
	800A286	8.0	4.0	349	15	11.0	.5	11.50	0.88	1.00 x 36 x 4
35	800A336	8.0	3.3	340	8	11.0	.5	11.50	0.88	1.00 x 36 x 4
	850A336	8.5	3.8	395	12	11.5	.5	12.00	1.00	1.00 x 36 x 4
	900A336	9.0	4.3	425	15	12.5	.5	12.38	1.00	1.00 x 36 x 4
40	900A386	9.0	3.6	430	10	12.5	.5	12.38	1.00	1.00 x 36 x 4
	950A386	9.5	4.1	485	12	13.0	.5	13.00	1.00	1.00 x 36 x 4
	T00A386	10.0	4.6	515	15	13.5	.5	14.00	1.00	1.00 x 36 x 4
45	950A436	9.5	3.4	500	10	13.0	.5	13.00	1.00	1.00 x 36 x 4
	T00A436	10.0	3.9	560	12	13.5	.5	14.00	1.00	1.00 x 36 x 4
	T50B436	10.5	4.4	645	15	14.0	.5	14.50	1.25	1.25 x 42 x 6

Twin Tapered Luminaire Arms

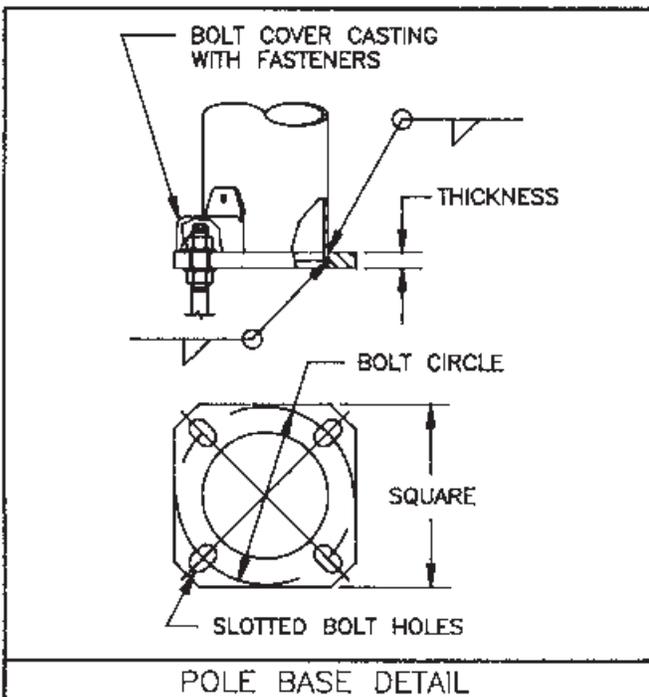
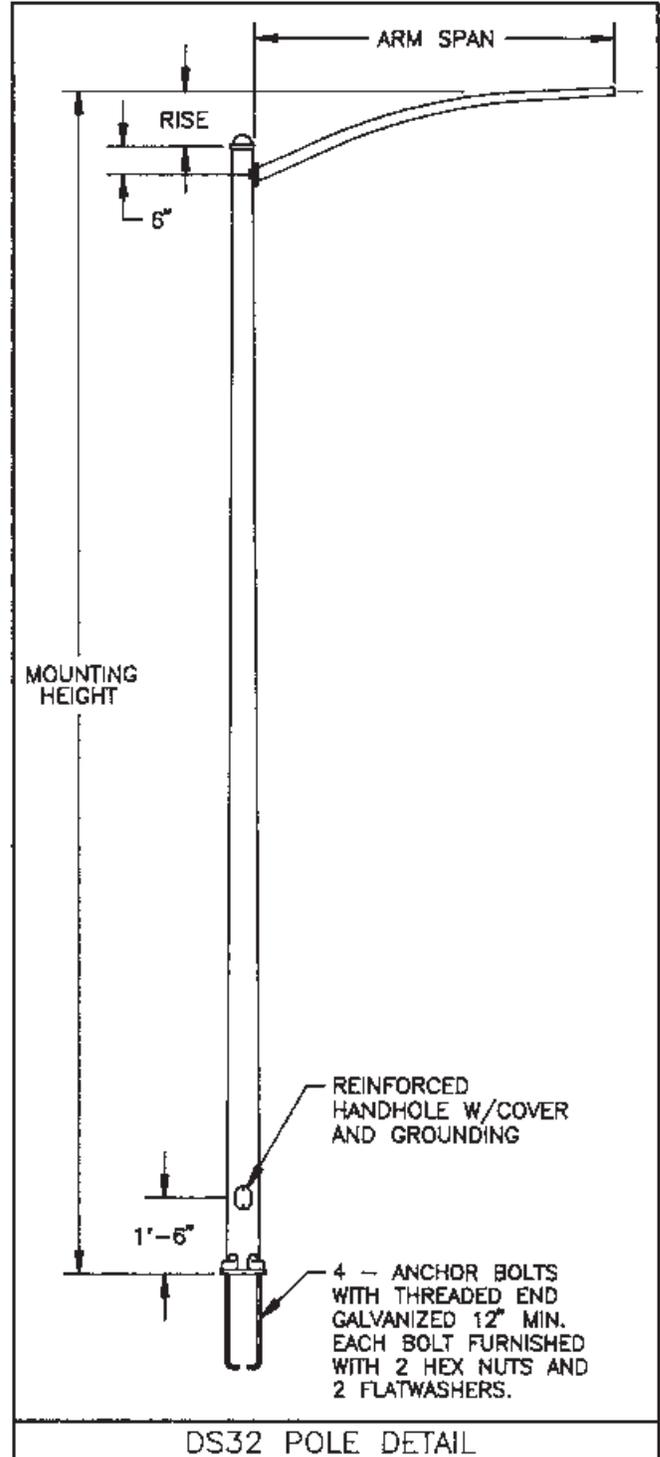
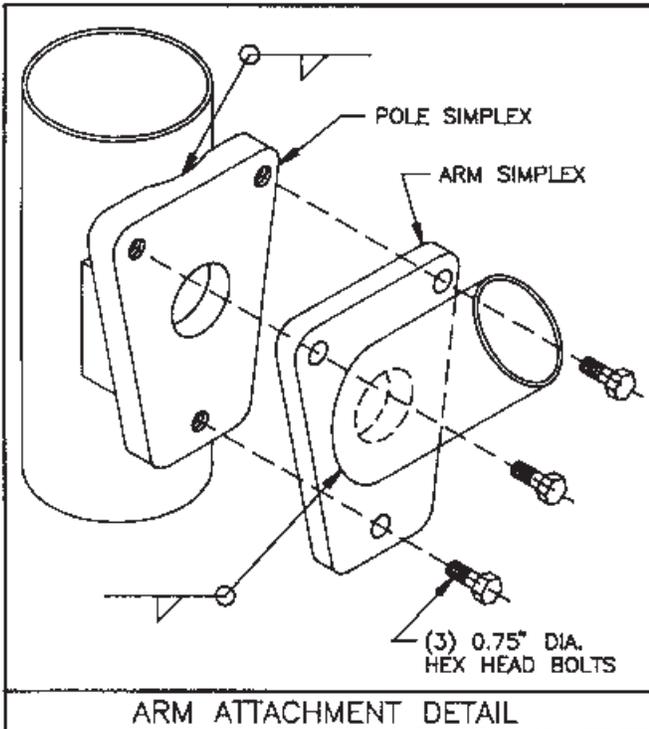
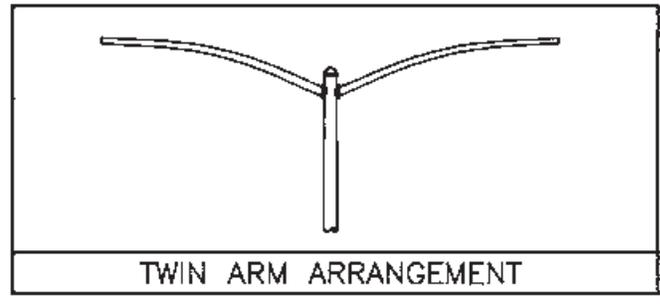
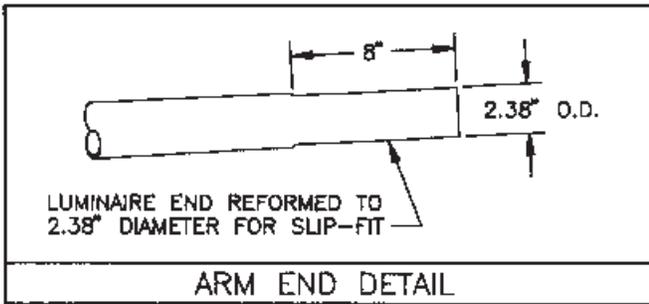
Nominal Mounting Height (ft)	Shaft				Arm Max. Lngth. (ft)	Pole Base				Anchor Bolts Dia. x Lngth. x Hk. (in)
	Designation Number	Base O.D. (in)	Top O.D. (in)	Struct. Weight (lbs)		Bolt Circle		Square (in)	Thk. (in)	
						Dia. (in)	± (in)			
30	750A286	7.5	3.5	390	12	10.5	.5	11.25	0.88	1.00 x 36 x 4
	800A286	8.0	4.0	445	15	11.0	.5	11.50	0.88	1.00 x 36 x 4
35	800A336	8.0	3.3	395	8	11.0	.5	11.50	0.88	1.00 x 36 x 4
	850A336	8.5	3.8	470	12	11.5	.5	12.00	1.00	1.00 x 36 x 4
	900A336	9.0	4.3	515	15	12.5	.5	12.38	1.00	1.00 x 36 x 4
40	900A386	9.0	3.6	490	10	12.5	.5	12.38	1.00	1.00 x 36 x 4
	950A386	9.5	4.1	560	12	13.0	.5	13.00	1.00	1.00 x 36 x 4
	T00A386	10.0	4.6	600	15	13.5	.5	14.00	1.00	1.00 x 36 x 4
45	950A436	9.5	3.4	585	10	13.0	.5	13.00	1.00	1.00 x 36 x 4
	T00A436	10.0	3.9	645	12	13.5	.5	14.00	1.00	1.00 x 36 x 4
	T50B436	10.5	4.4	740	15	14.0	.5	14.50	1.25	1.25 x 42 x 6

DS32 NOTES:

1. All designs with the letter "A" utilize 1" gauge material (.1196"). Designs with the letter "B" utilize 10 gauge material (.1345").
2. All designs utilize 4" x 6.5" nominal handhole.
3. Maximum luminaire weight is 75 lbs. per arm.
4. Nominal luminaire mounting heights as charted are within ± 1" depending upon the arm length selected and respective rise height.
5. Structure weight is a nominal value which includes the pole shaft, base plate, and luminaire arm only.
6. All designs based on a 100 mph wind speed w/1.3 gust factor and maximum luminaire EPA of 2.0.

Luminaire Arm Schedule

Arm Span (Ft)	Rise Height	Arm Size (in)
4	0'-6"	3.0 x 2.4 x 11 Ga.
6	1'-0"	3.3 x 2.4 x 11 Ga.
8	1'-4"	3.6 x 2.4 x 11 Ga.
10	1'-8"	3.8 x 2.4 x 11 Ga.
12	2'-0"	4.1 x 2.4 x 11 Ga.
15	2'-6"	4.6 x 2.4 x 11 Ga.



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Tapered Poles

DS210, DS220



ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. Please refer to the charted bolt circles and detail drawings to determine the type of hole or slot accommodation made for the anchor bolt.

POLE SHAFT

The pole shaft conforms to ASTM A595 Grade-A and is supplied in 11 gauge (0.1196"), 7 gauge (0.1793") 5 gauge (0.2092") or 3 gauge (0.2391") thickness. The pole can be either one-piece or two piece construction, with a full length longitudinal high frequency electric resistance weld. The DS210 series is round in cross-section having a uniform taper of approximately 0.14 inches per foot of length. The DS220 series shaft is square in cross section having flat sides, radiused corners and a uniform taper of approximately 0.11 inches per foot of length.

HANDHOLE

The reinforcing handhole rim consists of either a nominal 3" x 5" rectangular shaped tubing or 4" x 6.5" oval shaped pipe material. The 3" x 5" handhole is provided with a steel attachment bar, steel cover, and one round head machine screw. The 4" x 6.5" handhole includes two tabs for mounting a steel cover with hex head attachment screws. Both handhole types are welded in the pole shaft and are located 1'-6" above the base.

ELECTRICAL GROUND

A nut holder is provided near the handhole and includes a .5"-13UNC hex head bolt and nut.

NUT COVERS (OPTIONAL)

Nut covers for anchor bolts are zinc die cast. Each cover is fastened to the shaft by a 0.25" stainless steel, self-tapping, hex head screw. Nut covers are a standard component for the DS210 series and are NOT available for the DS220 series.

FULL BASE COVER (STANDARD)

The optional full base cover is fabricated from ABS plastic. Valmont reserves the right to provide a steel assembly on some applications depending upon the finish requirement and/or pole shaft base diameter. Both steel and plastic covers are a two-piece assembly secured together with two fasteners. A full base cover is a standard component on the DS220 series.

POLE TOP TENON (STANDARD)

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring race-way into the pole top tenon. Standard sizes are either 2.38" O.D. x 4" long (P2) or 4" O.D. x 6" long (P4) steel tubing. See page 1 for other available sizes.

POLE TOP CAP

A removable cap is available as an option to be used in conjunction with drilled shafts for direct luminaire arm attachment.

STANDARD FINISH

Standard finishes available are galvanize, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds, as charted, with an appropriate gust factor under the following conditions:

The luminaire(s) and/or mounting bracket(s) center of gravity, or centroid, is assumed to be located a maximum of 2'-6" above the pole top. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient.

The listed weights include luminaire(s) and/or mounting bracket(s) and are based on a weight to EPA ratio of 25 pounds per square foot.

The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures, such as bridges and buildings, also necessitate special consideration requiring Valmont's recommendation.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard. Secondary moments are considered on all designs.

Maximum weight and EPA values for DS220 products are determined by analyzing stress from two wind directions as shown. Due to the increased area and reduced section properties, stress levels across the points generally control the allowable loads.

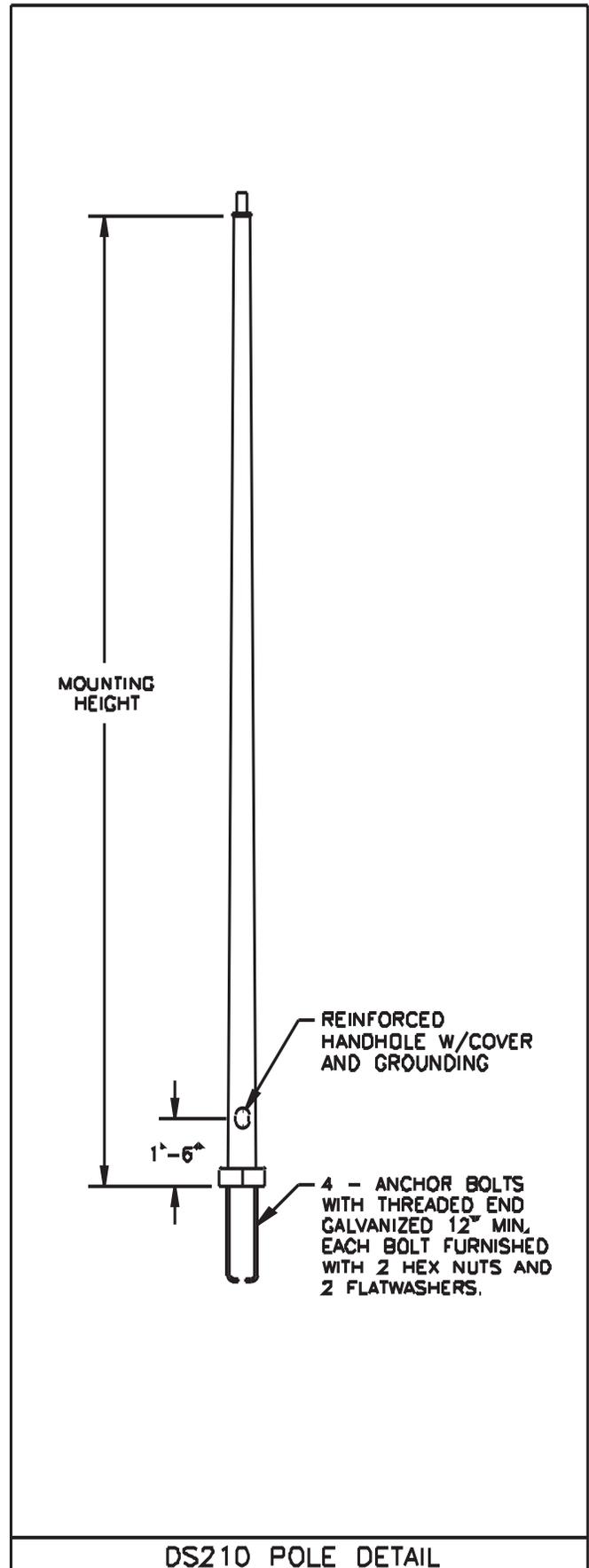
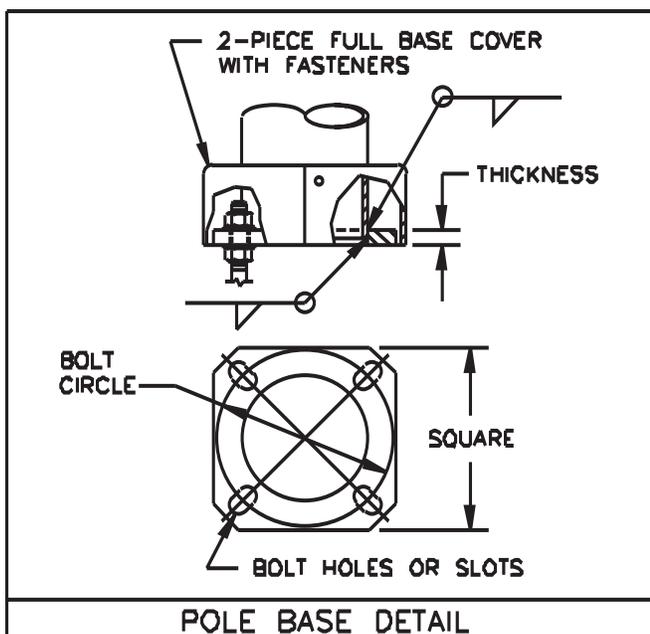
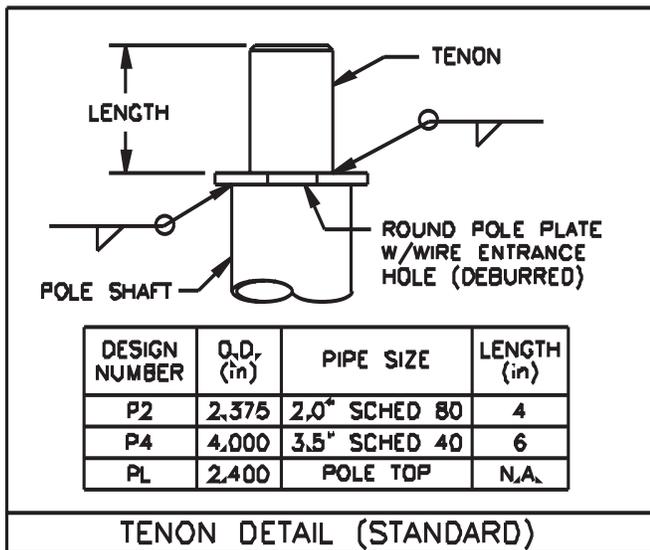
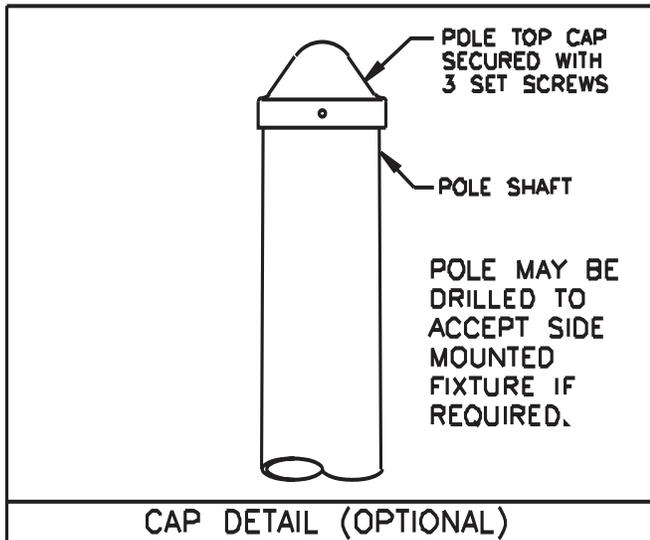
Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.

DS210 Round Tapered

Nominal Mounting Height (ft)	Shaft					Pole Base				Anchor Bolts	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Top O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)	Dia. x Lngth. x Hk. (in)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
						Dia. (in)	± (in)									
20	**590A200-P2	5.9	3.1	11	140	9.0	.5	10.00	0.88	1.00 x 36 x 4	19.3	482	15.1	377	12.2	305
	650A200-P2	6.5	3.7	11	160	9.5	.5	10.50	0.88	1.00 x 36 x 4	24.2	605	19.3	482	15.6	390
25	**590A250-PL	5.9	2.4	11	155	9.0	.5	10.00	0.88	1.00 x 36 x 4	12.5	312	9.9	247	8.0	200
	700A250-P2	7.0	3.5	11	200	10.0	.5	10.88	0.88	1.00 x 36 x 4	20.3	507	16.2	405	13.1	327
	700E250-P2	7.0	3.5	7	280	10.0	.5	10.88	1.00	1.00 x 36 x 4	30.5	760	24.0	625	19.8	495
30	660A300-PL	6.6	2.4	11	200	9.5	.5	10.50	0.88	1.00 x 36 x 4	11.7	292	9.3	232	7.5	187
	800A300-P2	8.0	3.8	11	265	11.0	.5	11.50	0.88	1.00 x 36 x 4	18.9	473	14.9	373	12.0	300
	800E300-P2	8.0	3.8	7	380	11.0	.5	11.50	1.25	1.25 x 42 x 6	33.5	838	27.0	675	22.0	550
35	730A350-PL	7.3	2.4	11	250	10.5	.5	11.25	0.88	1.00 x 36 x 4	11.2	280	8.9	222	7.1	177
	850A350-P2	8.5	3.6	11	315	11.5	.5	12.00	1.00	1.00 x 36 x 4	18.9	472	15.1	377	12.2	305
	950A350-P2	9.5	4.6	11	370	13.0	.5	13.00	1.00	1.00 x 36 x 4	23.2	580	18.2	455	14.5	363
39	782A389-PL	7.8	2.4	11	285	11.0	.5	11.50	0.88	1.00 x 36 x 4	10.7	267	8.5	212	6.6	165
	900A389-P2	9.0	3.6	11	355	12.5	.5	12.38	1.00	1.00 x 36 x 4	17.2	430	13.5	338	10.8	270
	900E389-P2	9.0	3.6	7	515	12.5	.5	12.38	1.25	1.25 x 42 x 6	28.5	715	23.0	575	19.0	475
45	T00A450-P2	10.0	3.7	11	450	13.5	.5	14.00	1.00	1.00 x 36 x 4	17.4	435	13.5	338	10.6	265
	T00E450-P2	10.0	3.7	7	650	13.5	.5	14.00	1.25	1.25 x 42 x 6	28.5	715	23.0	575	19.0	475
	E00E450-P4	11.0	4.7	7	780	15.0	.5	16.50	1.50	1.25 x 42 x 6	35.7	893	28.0	700	22.3	558
50	T00A500-P2	10.0	3.0	11	475	13.5	.5	14.00	1.00	1.00 x 36 x 4	13.2	330	10.6	265	8.3	208
	T00E500-P2	10.0	3.0	7	680	13.5	.5	14.00	1.25	1.25 x 42 x 6	20.5	512	16.5	412	13.6	340
	E00E500-P4	11.0	4.0	7	812	15.0	.5	16.50	1.50	1.25 x 42 x 6	29.9	748	23.5	588	18.6	465
	H00E500-P4	13.0	6.0	7	1020	17.0	N/A	18.00	1.50	1.50 x 54 x 6	50.4	1260	39.7	992	31.4	785
	H00J500-P4	13.0	6.0	3	1335	17.5	N/A	18.50	1.75	1.75 x 84 x 6	69.2	1730	55.0	1375	44.2	1105
55	E00E550-P4	11.0	3.5	7 & 11	890	15.0	.5	16.50	1.50	1.25 x 42 x 6	21.6	540	17.7	442	14.7	367
	W00E550-P4	12.0	4.5	7 & 11	975	16.0	N/A	17.00	1.50	1.50 x 54 x 6	32.2	805	25.9	647	21.1	527
	W504550-P4	12.5	5.2	5 & 7	1225	16.5	N/A	17.50	1.50	1.50 x 54 x 6	43.8	1095	35.0	875	28.6	715
60	W00E600-P4	12.0	4.0	7 & 7	1060	16.0	N/A	17.00	1.50	1.50 x 54 x 6	25.9	647	20.7	517	16.8	420
	H00E600-P4	13.0	4.8	7 & 11	1075	17.0	N/A	18.00	1.50	1.50 x 54 x 6	30.1	752	24.5	612	20.2	505
	W504600-P4	12.5	4.5	5 & 7	1275	16.5	N/A	17.50	1.50	1.50 x 54 x 6	34.0	850	27.6	690	22.6	565
65	H00E650-P4	13.0	4.3	7 & 7	1200	17.0	N/A	18.00	1.50	1.50 x 54 x 6	27.3	682	22.0	550	17.9	447
	H004650-P4	13.0	4.3	5 & 7	1400	17.0	N/A	18.00	1.50	1.50 x 54 x 6	30.8	770	24.8	620	20.4	510
70	H00E700-P4	13.0	3.6	7 & 7	1270	17.0	N/A	18.00	1.50	1.50 x 54 x 6	20.6	515	16.7	417	13.7	342
	H004700-P4	13.0	3.6	5 & 7	1440	17.0	N/A	18.00	1.50	1.50 x 54 x 6	23.6	590	19.2	480	15.8	395

DS210 NOTES:

- **3" x 5" nominal handhole - all others 4" x 6.5" nominal.
- Structure weight is a nominal value which includes the pole shaft and base plate only.
- Designs showing two shaft gauges indicates structure is provided as a two-piece, field assembled, unit. Heavier gauge is the bottom section.
- Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-6" above the nominal mounting height.

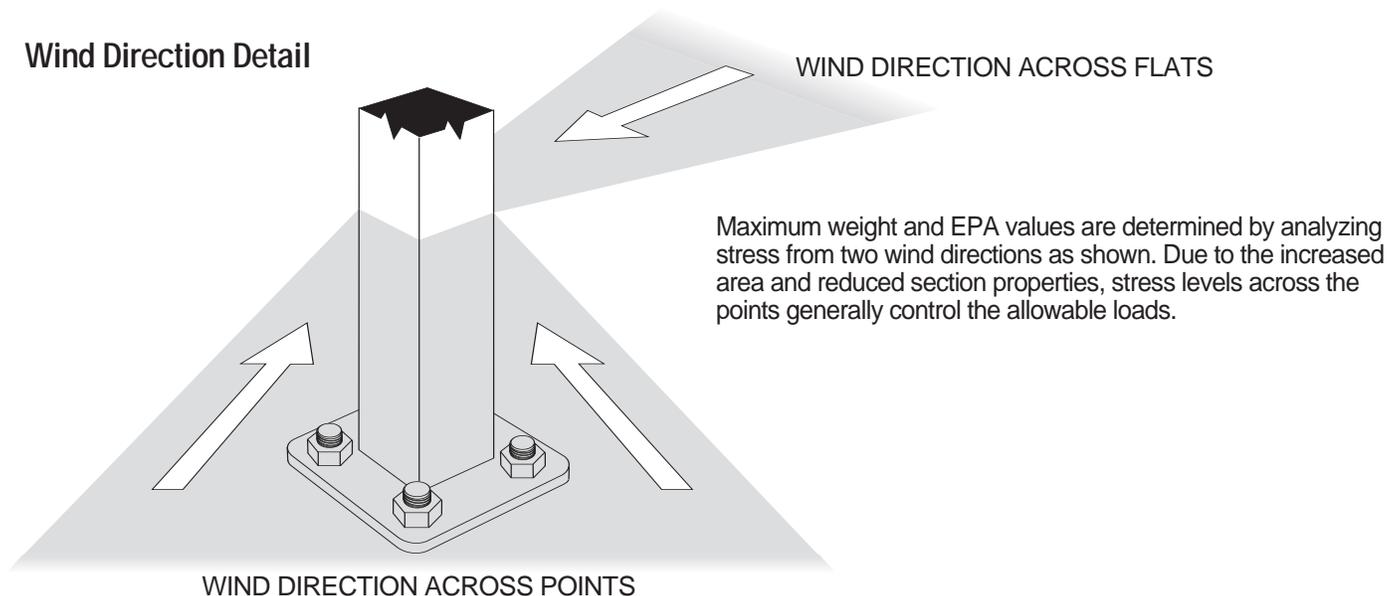


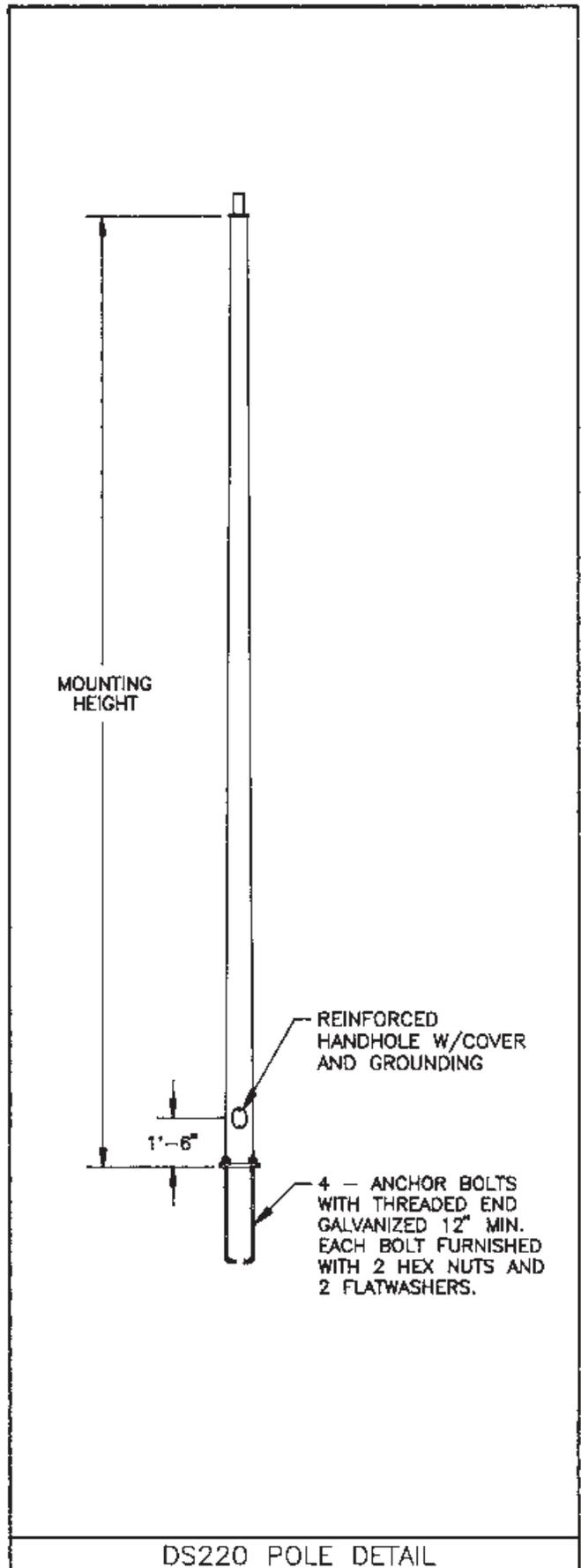
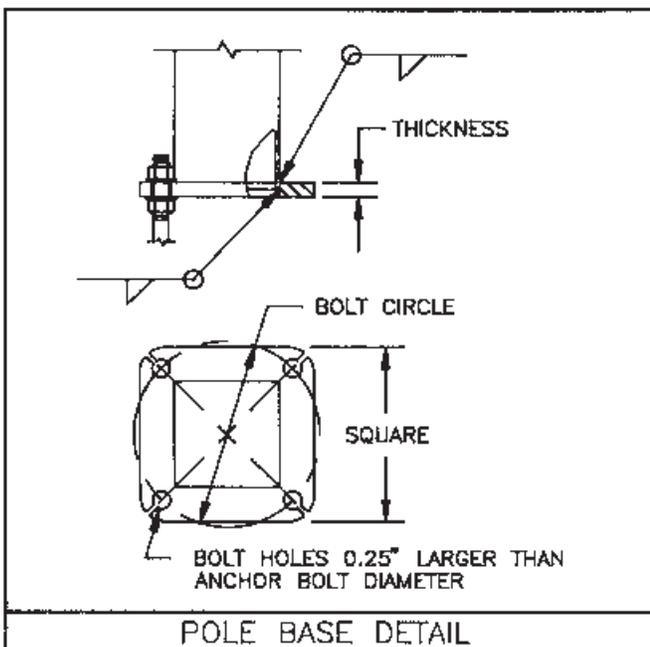
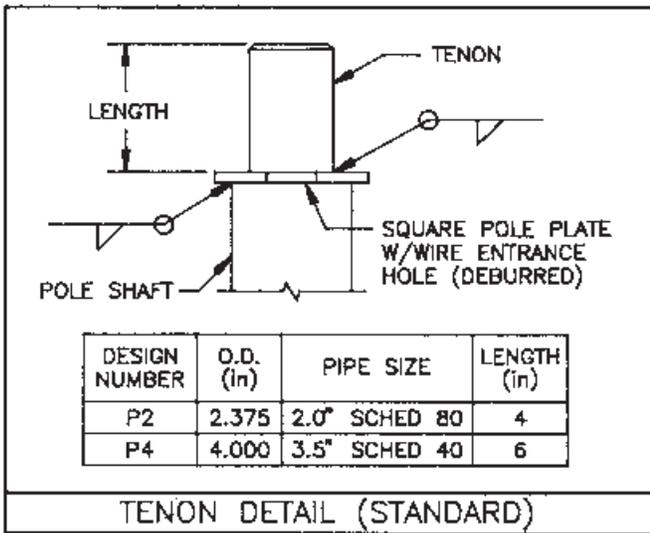
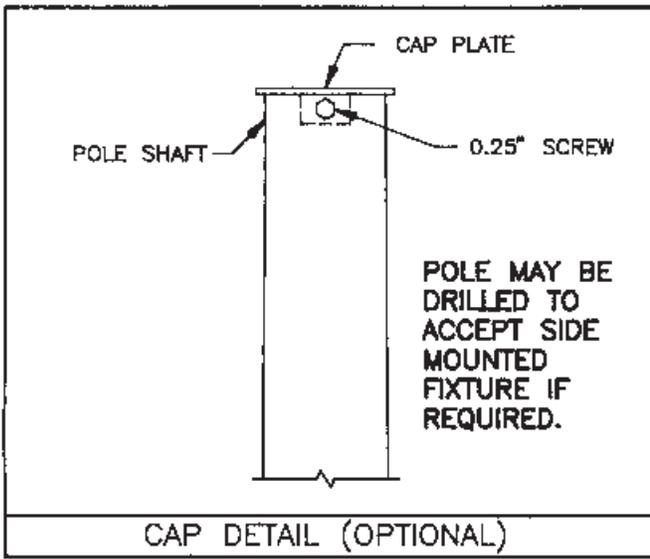
Nominal Mounting Height (ft)	Shaft					Pole Base			Anchor Bolts	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Top O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle (in)	Square (in)	Thk. (in)	Dia. x Lngth. x Hk. (in)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
20	**525A200	5.25	3.05	11	155	10.75	10.75	0.75	1.00 x 36 x 4	18.0	452	13.8	345	10.7	268
	**550E200	5.50	3.30	7	235	11.00	11.00	1.00	1.00 x 36 x 4	30.5	764	24.0	602	19.0	477
25	**600A250	6.00	3.25	11	205	12.00	11.50	0.88	1.00 x 36 x 4	16.8	422	12.6	315	9.5	238
	641E250	6.41	3.66	7	310	12.50	11.88	1.25	1.00 x 36 x 4	28.5	713	22.5	563	18.2	455
30	641A300	6.41	3.11	11	260	12.50	11.88	0.88	1.00 x 36 x 4	13.6	340	9.8	245	7.0	175
	641E300	6.41	3.11	7	375	12.50	11.88	1.25	1.00 x 36 x 4	23.6	590	17.9	448	13.7	343
	713E300	7.13	3.83	7	431	13.50	12.63	1.25	1.00 x 36 x 4	27.4	687	21.6	542	17.3	434
35	681A350	6.81	2.96	11	305	13.00	12.25	0.88	1.00 x 36 x 4	10.7	269	7.3	184	4.8	120
	713E350	7.13	3.28	7	475	13.50	12.63	1.25	1.00 x 36 x 4	23.4	585	17.4	435	13.0	325
	788E350	7.88	4.03	7	540	14.50	13.38	1.25	1.00 x 36 x 4	25.7	643	18.8	470	13.8	345
39	718A389	7.18	2.92	11	345	13.50	12.63	0.88	1.00 x 36 x 4	8.6	215	5.4	135	3.0	75
	713E389	7.13	2.87	7	500	13.50	12.63	1.25	1.00 x 36 x 4	19.3	483	14.2	355	10.4	260
	875E389	8.75	4.49	7	670	15.75	14.25	1.50	1.25 x 42 x 6	26.1	654	20.6	517	16.2	405
45	788E450	7.88	2.93	7	620	14.50	13.38	1.25	1.00 x 36 x 4	16.0	400	11.1	278	7.4	187
	875E450	8.75	3.80	7	730	15.75	14.25	1.50	1.25 x 42 x 6	23.5	588	16.6	415	11.4	287
50	881E500	8.81	3.31	7	780	16.00	15.50	1.25	1.25 x 42 x 6	19.4	485	13.2	332	8.7	218

DS220 NOTES:

- ** 3" x 5" nominal handhole, all others 4" x 6.5" nominal.
- Structure weight is a nominal value which includes the pole shaft and base plate only.
- The pole base plate is provided with bolt holes 0.25" larger than the anchor bolt diameter.
- Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-6" above the nominal mounting height.

Wind Direction Detail





Fatigue Resistant Square Non-Tapered Poles

DS330



ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with a slotted anchor bolt opening that enables a range of bolt circles to be utilized. The pole chart information lists bolt circle ranges for each pole type.

POLE SHAFT

The pole shaft is fabricated from weldable grade hot rolled commercial quality carbon steel and is supplied in 11 gauge (0.1196") or 7 gauge (0.1793") material thickness having a guaranteed minimum yield strength of 55,000 psi. Shafts are of one-piece construction with a full length longitudinal high frequency electric resistance weld. The shaft is uniformly square in cross section with flat sides, rounded corners (.75" per corner), and no taper.

HANDHOLE

The reinforcing handhole rim consists of a rectangular shaped tubing material having a nominal 2.5" x 5" opening. It is provided with a steel attachment bar, steel cover, and one round head machine screw. The handhole is welded in the pole shaft and is located 1'-6" above the base.

ELECTRICAL GROUND

A nut holder is provided near the handhole and includes a 0.5"-13 UNC hex head bolt and nut.

FULL BASE COVER (STANDARD)

The standard full base cover is fabricated from ABS plastic. It is a two-piece cover secured together with two plastic hand push rivets.

POLE TOP CAP (STANDARD)

A removable top cap is provided and is used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire arm attachment.

POLE TOP TENON (OPTIONAL)

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring raceway into the pole top tenon. Standard sizes are of either 2.38" O.D. x 4" long (P2) or 4" O.D. x 6" long (P4) steel tubing.

STANDARD FINISH

Standard finishes available are galvanized, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds,

as charted, with an appropriate gust factor under the following conditions:

The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook Winds along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures (such as bridges and buildings) also necessitate special consideration requiring Valmont's recommendation.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard.

Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.

FATIGUE RESISTANT PRODUCT

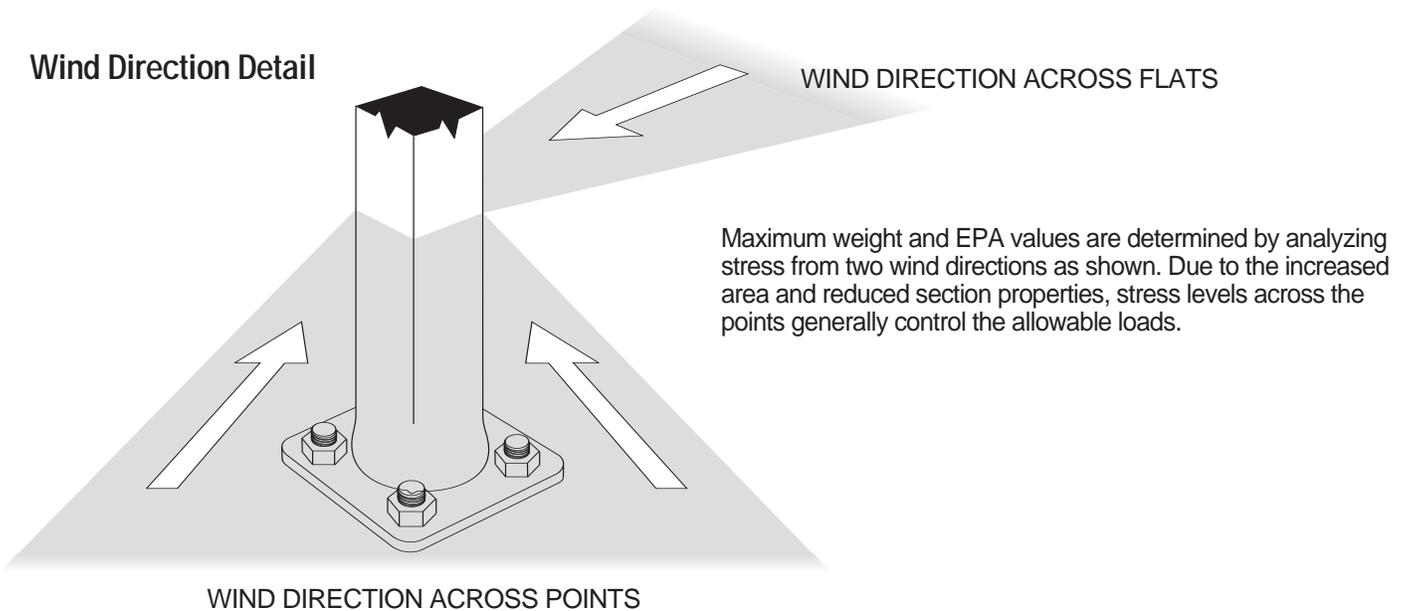
This product was specially designed to reduce the effects of fatigue in the welded connection between the pole shaft and base plate. Square poles, by the very nature of their shape, are more susceptible to fatigue at this critical joint than in any other geometric pole shape or design. By flaring out the shaft, and creating a round section at this critical welded connection point, the stress and resulting fatigue occurring at this point is more evenly distributed and thus enhances the structures longevity and overall performance.

Nominal Mounting Height (ft)	Shaft				Pole Base				Anchor Bolts	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Square (in)	Thk. (in)	Dia. x Lngth. x Hk. (in)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
10	400Q100	4.00	11	75	8.5	0.5	8.25	0.75	.75 x 17 x 3	30.6	765	23.8	595	18.9	473
12	400Q120	4.00	11	90	8.5	0.5	8.25	0.75	.75 x 17 x 3	24.4	610	18.8	470	14.8	370
14	400Q140	4.00	11	100	8.5	0.5	8.25	0.75	.75 x 17 x 3	19.9	498	15.1	378	11.7	293
16	400Q160	4.00	11	115	8.5	0.5	8.25	0.75	.75 x 17 x 3	15.9	398	11.8	295	8.9	223
18	400Q180	4.00	11	125	8.5	0.5	8.25	0.75	.75 x 17 x 3	12.6	315	9.2	230	6.7	168
20	400Q200	4.00	11	140	8.5	0.5	8.25	0.75	.75 x 17 x 3	9.6	240	6.7	167	4.5	150
	500Q200	5.00	11	185	11.0	1.0	11.00	1.00	.75 x 17 x 3	17.7	443	12.7	343	9.4	235
	500W200	5.00	7	265	11.0	1.0	11.00	1.00	.75 x 17 x 3	28.1	703	21.4	535	16.2	405
25	400Q250	4.00	11	170	8.5	0.5	8.25	0.75	.75 x 17 x 3	4.8	150	2.6	100	1.0	50
	400W250	4.00	7	245	8.5	0.5	8.25	0.88	.75 x 17 x 3	10.8	270	7.7	188	5.4	135
	500Q250	5.00	11	225	11.0	1.0	11.00	1.00	.75 x 17 x 3	9.8	245	6.3	157	3.7	150
	500W250	5.00	7	360	11.0	1.0	11.00	1.00	.75 x 17 x 3	18.5	463	13.3	333	9.5	238
30	400W300	4.00	7	291	8.5	0.5	8.25	0.75	.75 x 17 x 3	6.7	168	4.4	110	2.6	65
	500Q300	5.00	11	265	11.0	1.0	11.00	1.00	.75 x 17 x 3	4.7	150	2.0	50	-	-
	500W300	5.00	7	380	11.0	1.0	11.00	1.00	.75 x 17 x 3	10.7	267	6.7	167	3.9	100
	600W300	6.00	7	520	12.0	1.0	12.50	1.00	1.00 x 36 x 4	19.0	475	13.2	330	9.0	225
35	500W350	5.00	7	440	11.0	1.0	11.00	1.00	.75 x 17 x 3	5.9	150	2.5	100	-	-
	600W350	6.00	7	540	12.0	1.0	12.50	1.00	1.00 x 36 x 4	12.4	310	7.6	190	4.2	105
40	600W400	6.00	7	605	12.0	1.0	12.50	1.00	1.00 x 36 x 4	7.2	180	3.0	75	-	-

DS330 NOTES:

1. All designs provided with 2.5" x 5" nominal handhole.
2. Structure weight is a nominal value which includes the pole shaft and base plate only.
3. Maximum weight and EPA values are based on side mounted fixtures only. Consult Valmont on loading criteria for pole top mounted luminaires and/or brackets.

Wind Direction Detail



DS330 Fatigue Resistant Square Non-Tapered

Valmont is widely recognized throughout the industry as the leader in product design.

The DS330 square steel lighting pole is just another example why.

INCREASED PERFORMANCE

The unique bell-shaped base minimizes the effects of pole vibration by improving the fatigue performance of the shaft to base plate connection.

HOW WE DID IT

We evenly distributed the stress¹ by flaring out the bottom 4" of the pole shaft and creating a round section at the critical welded connection point.

UPDATED EXTERIOR DESIGN

The DS330's rounded corners match many of today's softer corner fixture styles.

ENDLESS CHOICE OF COLORS

Valmont delivers top quality powder coatings in an endless choice of colors. We can match any color you need. Call for more information about Valmont's endless choice of colors.

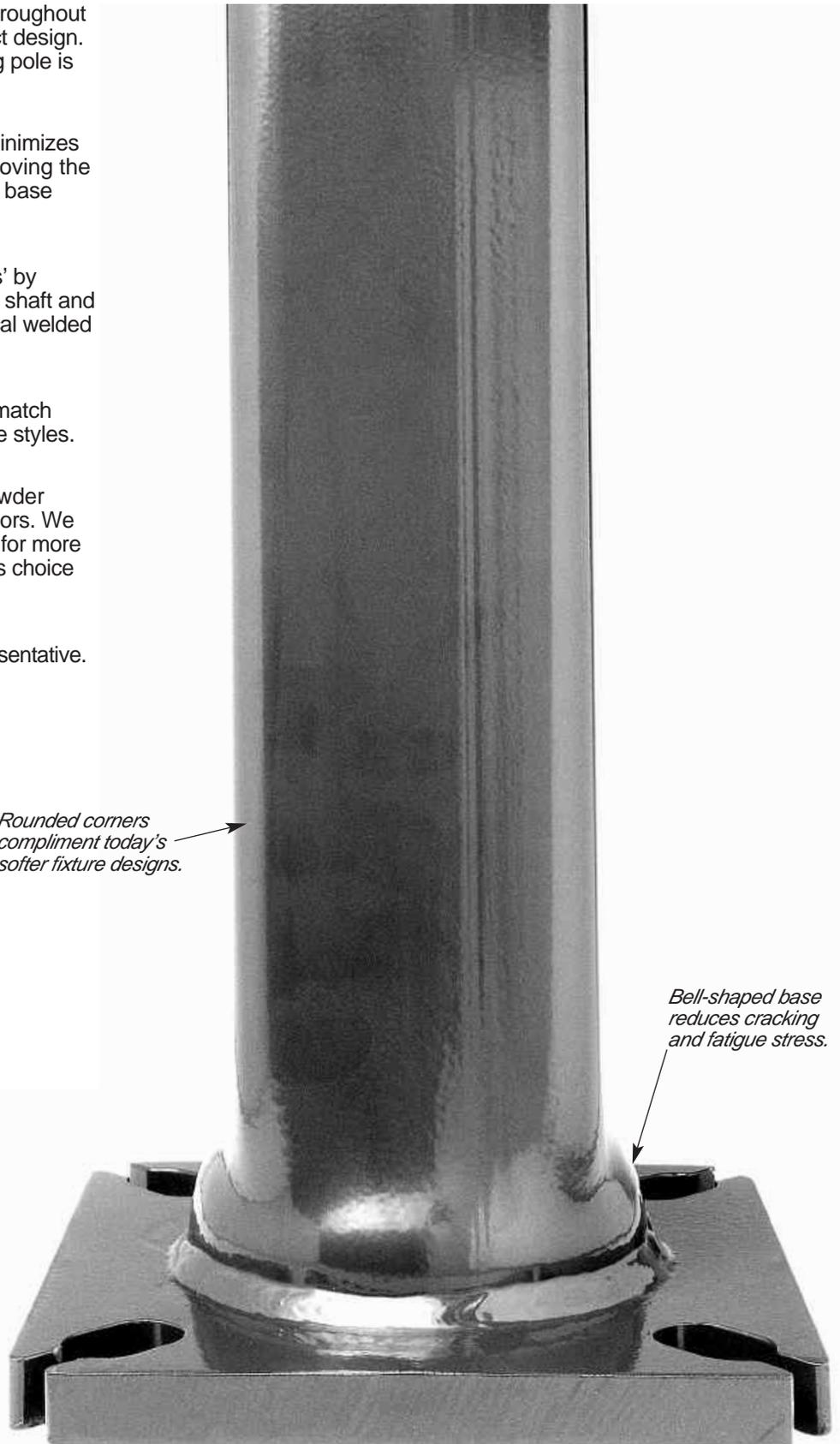
QUESTIONS?

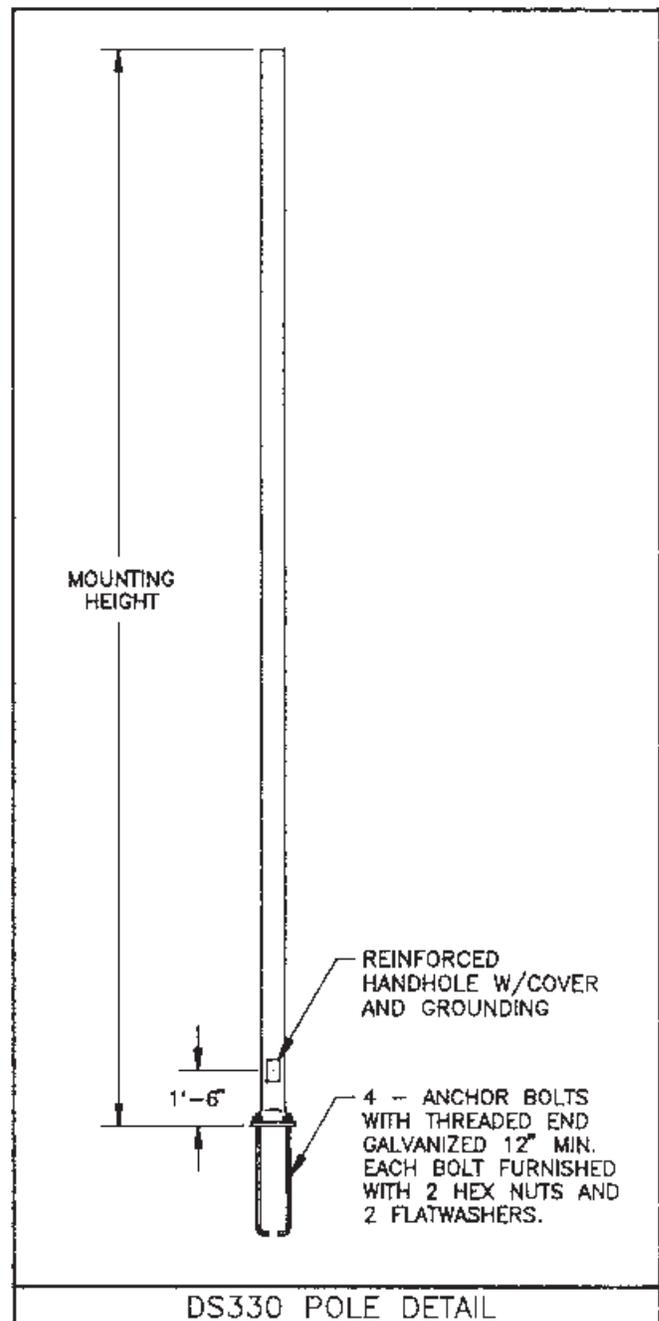
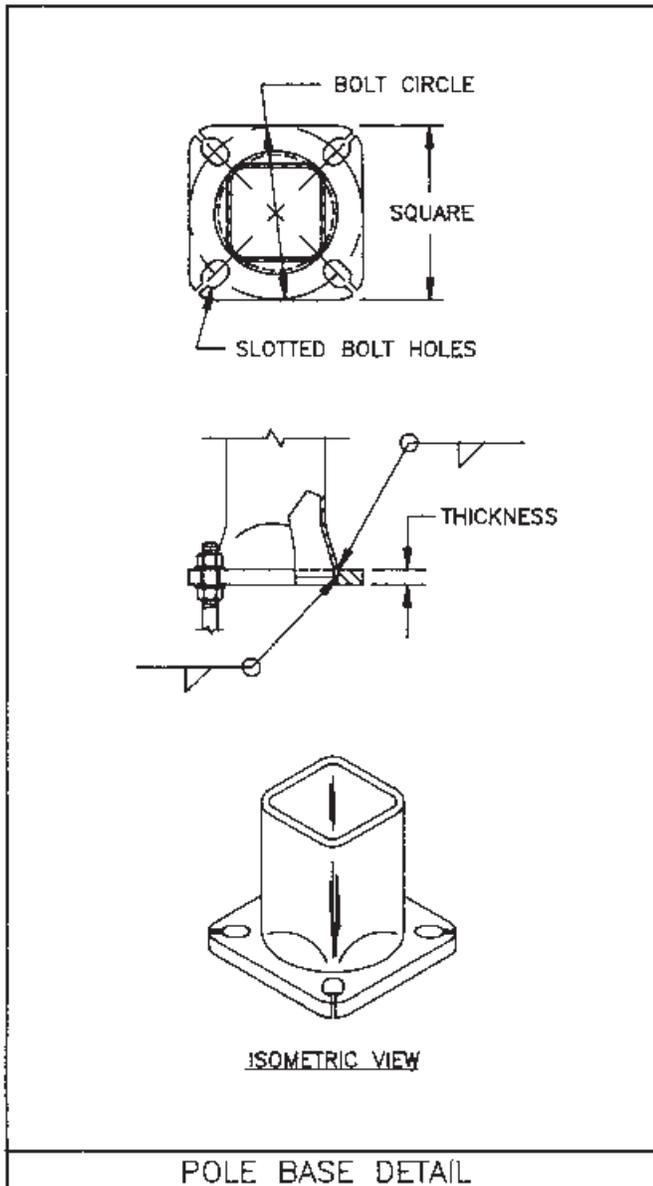
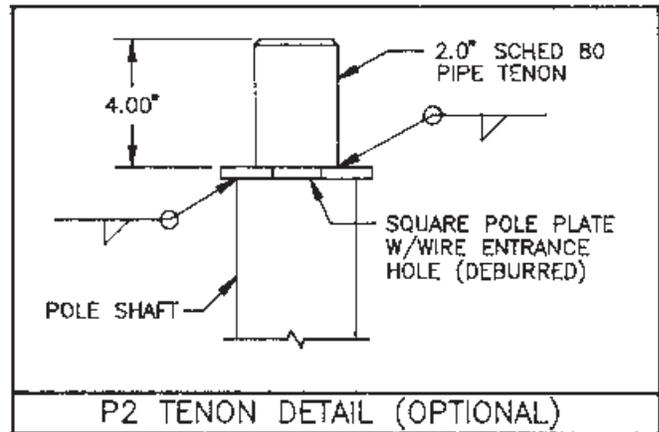
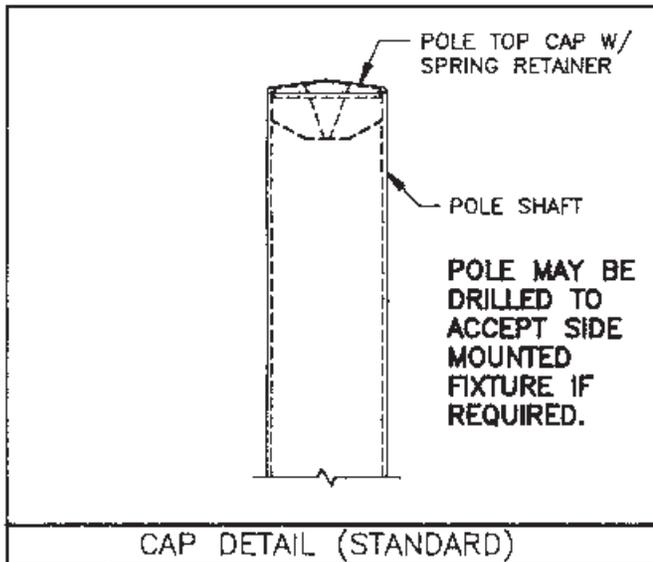
Contact your local Valmont representative.

*Rounded corners
compliment today's
softer fixture designs.*



*Bell-shaped base
reduces cracking
and fatigue stress.*





Round Non-Tapered Poles

DS340



ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an “L” bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. The base is provided with bolt slots to accommodate a bolt circle range from 7" to 9".

POLE SHAFT

Pole shafts are fabricated from hot rolled welded steel tubing of one-piece construction with a full length longitudinal high frequency electric resistance weld. The cross-section is round with no taper. Shaft material shall have a minimum yield strength of 42,000 psi.

HANDHOLE

The reinforcing handhole rim consists of a nominal 2.5" x 5" rectangular shaped tubing material. The handhole is provided with a steel attachment bar, steel cover, and one round head zinc plated machine screw.

ELECTRICAL GROUND

A nut holder is welded near the handhole and includes a 0.5"-13UNC hex head bolt and nut.

FULL BASE COVER (STANDARD)

The full base cover is fabricated from ABS plastic. The covers are two-piece assemblies secured together with two fasteners.

STANDARD FINISH

Standard finishes available are galvanized, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 2.

POLE TOP CAP (STANDARD)

A removable top cap is provided and is used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire arm attachment.

POLE TOP TENON (OPTIONAL)

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring raceway into the pole top tenon. Standard sizes are of either 2.38" O.D. x 4" long (P2) or 4" O.D. x 6" long (P4) steel tubing. See page 1 for other available sizes.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards as shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds, as charted, with an appropriate gust factor under the following conditions:

The luminaire(s) and/or mounting bracket(s) center of gravity is assumed to be located at the pole top for all designs. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient.

The listed weights include luminaire(s) and/or mounting bracket(s).

The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures, such as bridges and buildings, also necessitate special consideration requiring Valmont's recommendation.

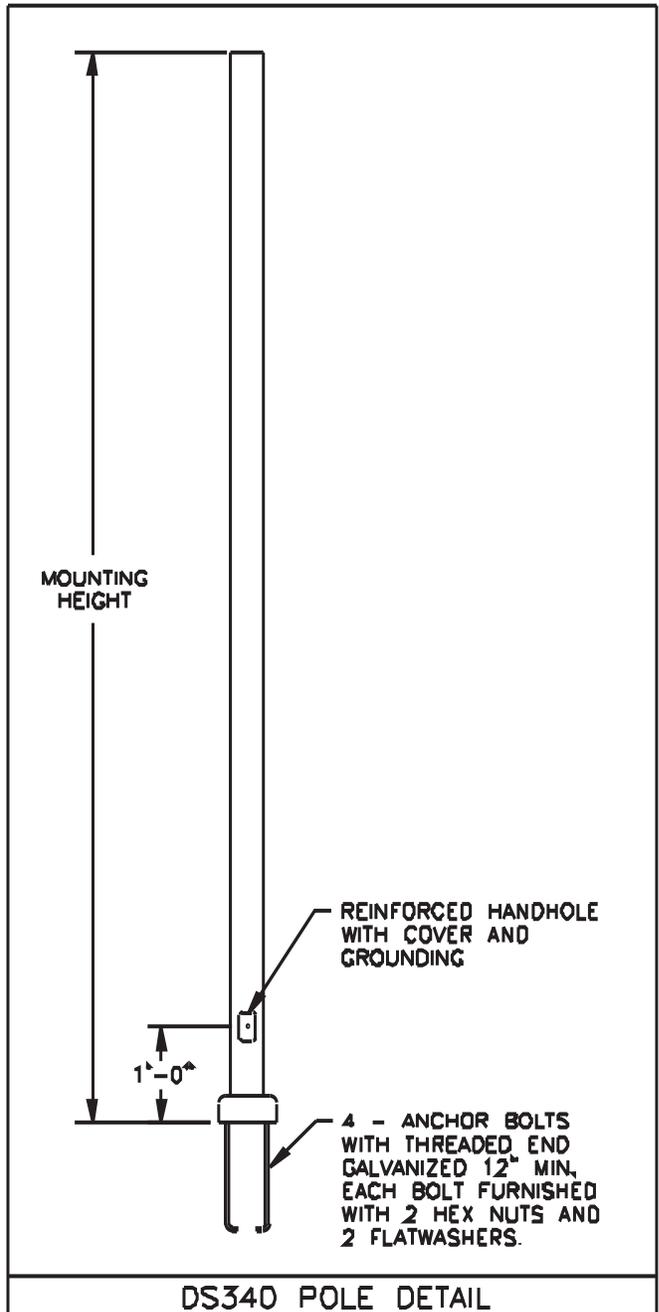
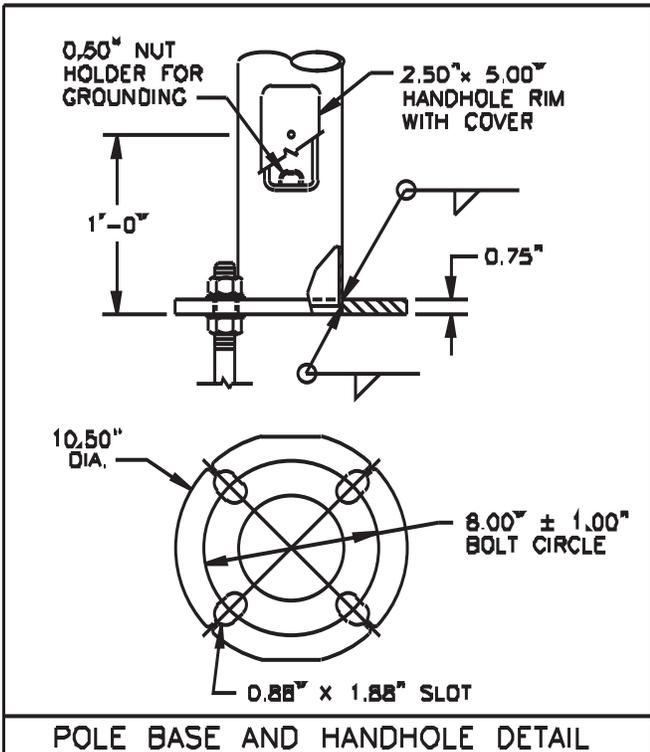
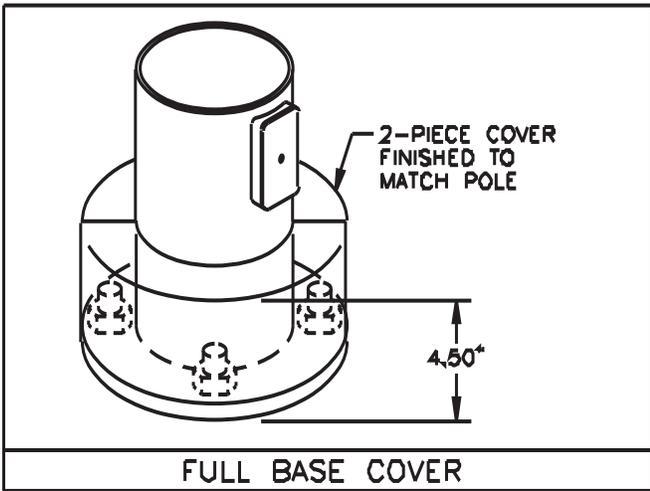
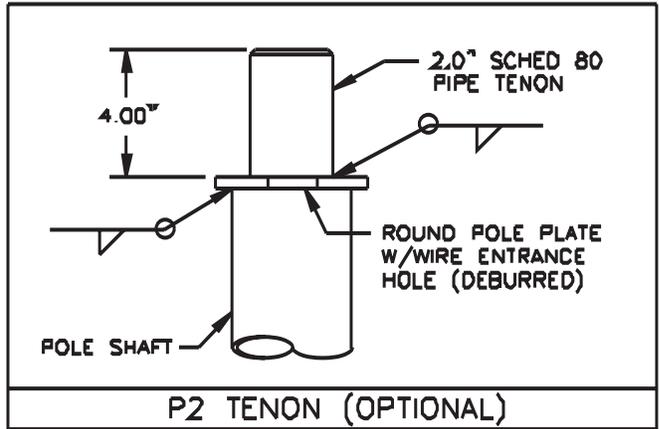
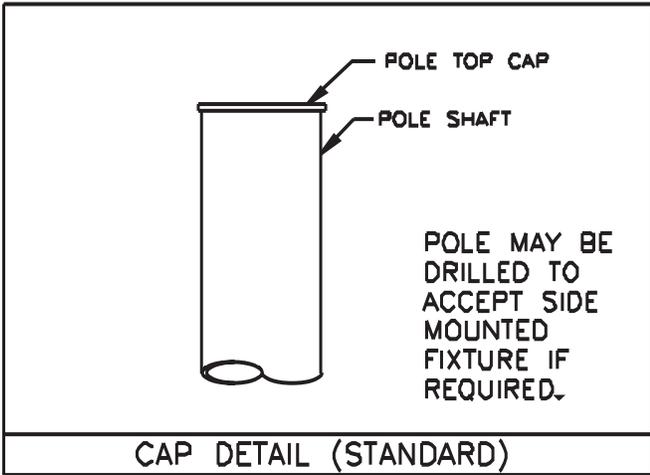
Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard. Secondary moments are considered on all designs.

Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.

Nominal Mounting Height (ft)	Shaft				80 MPH w/1.3 Gust		90 MPH w/1.3 Gust		100 MPH w/1.3 Gust	
	Designation Number	Pole O.D. (in)	Wall Thk. (in)	Structure Weight (lbs)	Max. EPA (fft2)	Max. Weight (lbs)	Max. EPA (fft2)	Max. Weight (lbs)	Max. EPA (fft2)	Max. Weight (lbs)
10	300V100	3.00	0.120	55	10.00	250	7.70	190	6.00	175
	400V100	4.00	0.120	70	19.10	480	15.00	375	12.20	305
	450V100	4.50	0.120	75	24.50	615	19.50	490	15.80	395
12	300V120	3.00	0.120	60	7.70	195	5.80	145	4.40	130
	400V120	4.00	0.120	80	15.00	390	11.80	300	9.50	240
	450V120	4.50	0.120	85	19.80	495	15.70	395	12.70	320
14	300V140	3.00	0.120	70	6.00	175	4.40	130	3.30	90
	400V140	4.00	0.120	90	12.20	305	9.40	250	7.60	195
	450V140	4.50	0.120	95	16.20	405	12.80	320	10.30	260
16	300V160	3.00	0.120	80	4.60	125	3.20	100	2.30	60
	400V160	4.00	0.120	100	9.60	250	7.40	185	5.90	150
	450V160	4.50	0.120	105	13.10	330	10.20	265	8.20	205
18	300V180	3.00	0.120	90	3.40	90	2.30	60	1.40	70
	400V180	4.00	0.120	110	7.60	190	5.70	180	4.50	130
	450V180	4.50	0.120	115	10.50	265	8.20	210	6.50	165
20	300V200	3.00	0.120	100	2.40	100	1.40	75	-	-
	400V200	4.00	0.120	120	6.00	150	4.45	150	3.45	125
	450V200	4.50	0.120	130	8.50	215	6.60	165	5.20	130
	500V200	5.00	0.120	145	11.75	300	9.10	230	7.25	180
25	400V250	4.00	0.120	145	2.85	100	1.95	75	1.35	75
	450V250	4.50	0.120	155	4.80	130	3.60	90	2.70	90
	500V250	5.00	0.120	180	7.25	180	5.50	150	4.25	150
	5006250	5.00	0.180	260	12.10	300	9.40	250	7.45	200
30	450V300	4.50	0.120	185	2.30	80	1.50	75	1.00	60
	500V300	5.00	0.120	210	4.20	150	3.00	125	2.25	100
	5006300	5.00	0.180	305	8.00	200	6.50	160	4.75	125

DS340 NOTES:

1. All designs utilize 0.75" x 17" x 3" anchor bolts.
2. All designs are provided with 2.5" x 5" nominal handhole.
3. Structure weight is a nominal value which includes the pole shaft and base plate only.
4. Pole base plate dimensions are the same for all designs. See pole base detail drawing for dimensions.
5. Maximum weight and EPA values are based on side mounting fixtures only. Consult Valmont on loading criteria for pole top mounted luminaires and/or brackets.



Round Tapered Low Level Lighting Poles

DS200, DS201, DS202



ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Either three (DS200) or four (DS202) anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

POLE SHAFT

The pole shaft conforms to ASTM A595 Grade-A and is supplied in 11 gauge (0.1196") thickness. The pole is of one-piece construction with a full length longitudinal high frequency electric resistance weld and is round in cross-section having a uniform taper of approximately 0.14 inches per foot of length.

POLE TOP

The pole top is held to a 3" O.D. ($\pm 0.13"$) for an external luminaire or bracket slip fit requirement. For internal slip fit requirements, please consult the factory before ordering.

ANCHOR BASE (DS200 ONLY)

The anchor base (base plate) is provided on the DS200 series only. It is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. Please refer to the charted bolt circle and detail drawing for information regarding bolt hole accommodations.

HANDHOLE (DS200 ONLY)

A reinforcing handhole rim is provided on the DS200 series only and is made of a rectangular shaped tubing material with a nominal 3" x 5" opening. It is provided with a steel attachment bar, steel cover, and one round head machine screw. The handhole is welded in the pole shaft and is located 1'-6" above the base.

ELECTRICAL GROUND (DS200 ONLY)

A nut holder is provided near the handhole and includes a 0.5"-13 UNC hex head bolt and nut.

UNDERGROUND WIRING ACCESS (DS201 ONLY)

A 1" diameter hole is provided in the pole shaft for wiring access on the DS201 series only. The hole is located 2'-6" below the ground line.

PEDESTAL BASE (DS202 ONLY)

The pedestal base is provided on the DS202 series only. It is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The pedestal base is circumferentially butt welded to the pole shaft and is provided complete with two access doors.

ELECTRICAL GROUND (DS202 ONLY)

A nut holder is provided inside the pedestal base and includes a 0.5"-13 UNC hex head bolt and nut.

STANDARD FINISH

Standard finishes available are galvanized, prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds, as charted, with an appropriate gust factor under the following conditions:

The luminaire(s) and/or mounting bracket(s) center of gravity, or centroid, is assumed to be located a maximum of 2'-0" above the pole top. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient.

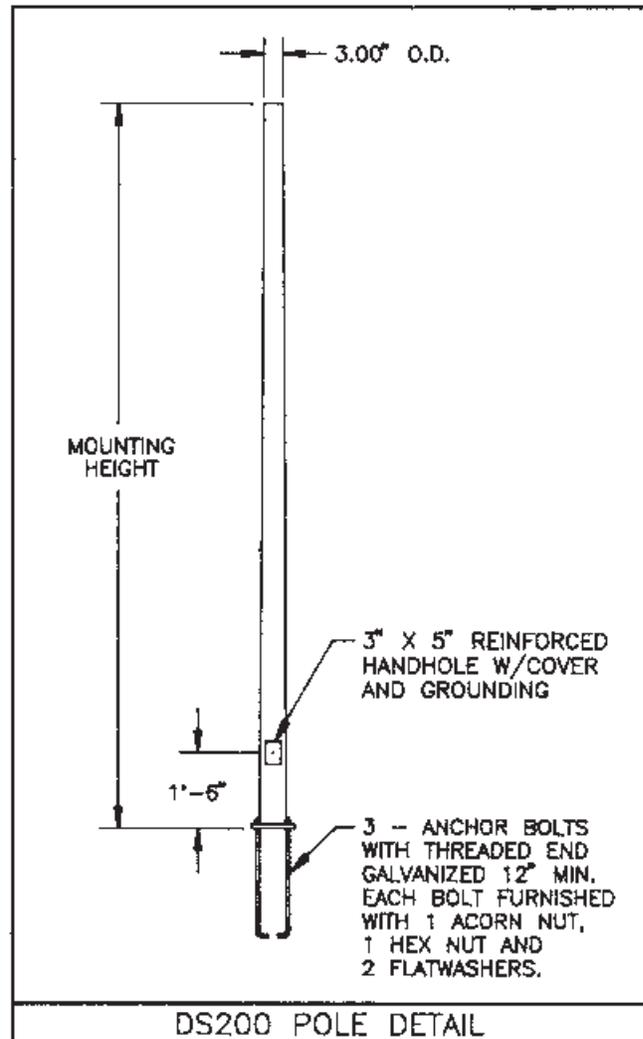
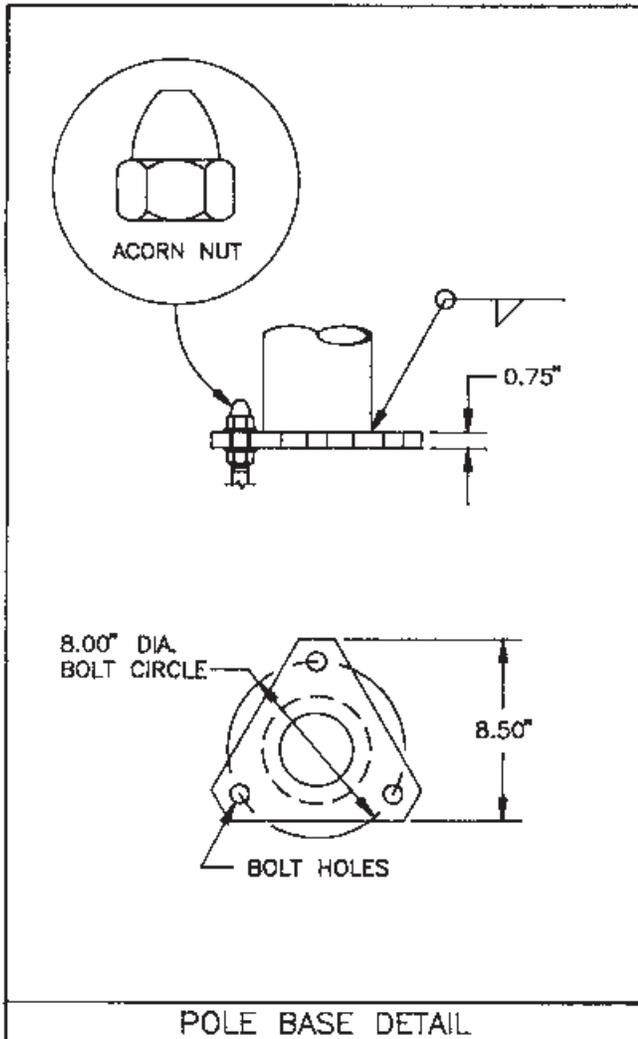
The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions may require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures, such as bridges and buildings, may also necessitate special consideration requiring Valmont's recommendation.

The embedded depth for the DS201 Series was designed using a minimum soil bearing pressure of 2000 psf.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard.

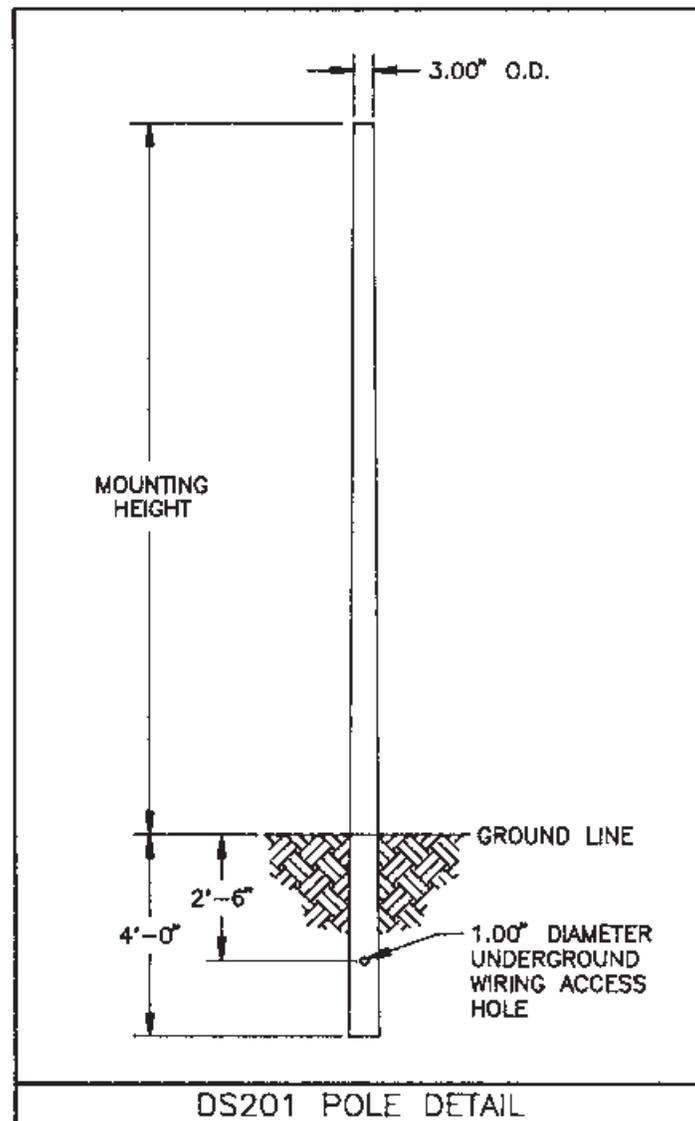
Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.



Nominal Mounting Height (ft)	Shaft				80 MPH w/1.3 Gust	90MPH w/1.3 Gust	100 MPH w/1.3 Gust
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Max EPA (ft ²)	Max EPA (ft ²)	Max EPA (ft ²)
10	440A100	4.40	11	60	11.6	8.9	7.0
12	468A120	4.68	11	70	11.8	9.0	7.1
14	496A140	4.96	11	80	11.4	8.7	6.8
16	524A160	5.24	11	95	10.0	7.6	5.9
18	552A180	5.52	11	110	8.9	6.7	5.2
20	580A200	5.80	11	125	7.5	5.5	4.2

DS200 NOTES:

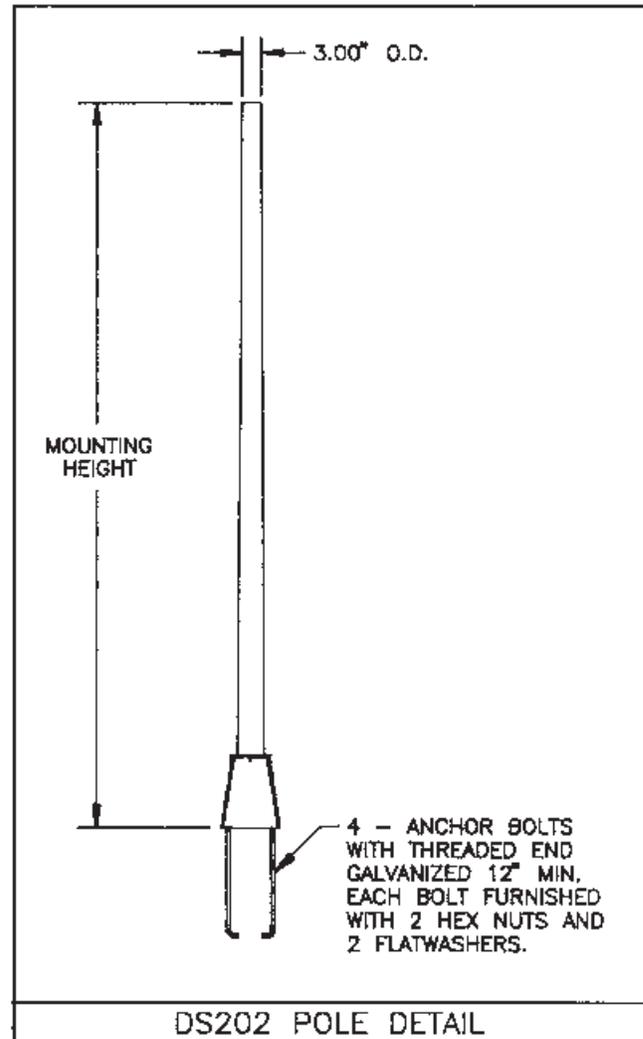
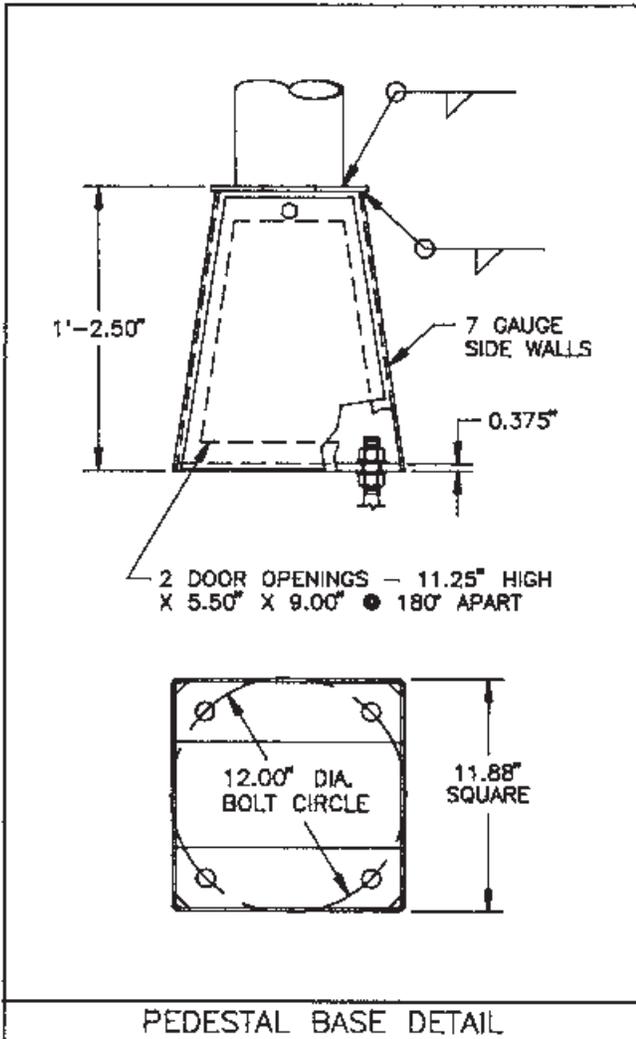
1. All designs utilize 0.75" x 17" x 3" anchor bolts
2. Structure weight is a nominal value which includes the pole shaft and base plate only
3. Pole base plate is the same for all designs. See detail drawing for information.
4. Maximum fixture weight for all designs is 125 lbs.
5. Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-0" above the nominal mounting height.



Nominal Mounting Height (ft)	Shaft				80 MPH w/1.3 Gust	90MPH w/ 1.3 Gust	100 MPH w/1.3 Gust
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Max EPA (ft ²)	Max EPA (ft ²)	Max EPA (ft ²)
10	496A140	4.96	11	75	10.0	7.7	6.8
12	524A160	5.24	11	90	9.3	7.2	5.7
14	552A180	5.52	11	100	8.7	6.6	5.2
16	580A200	5.80	11	110	8.1	6.1	4.7
18	608A220	6.08	11	125	7.6	5.7	4.3
20	636A240	6.36	11	150	7.1	5.3	3.9

DS201 NOTES:

1. Maximum fixture weight for all designs is 125 lbs.
2. Structure weight is a nominal value which includes the pole shaft only.
3. Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-0" above the nominal mounting height.



Nominal Mounting Height (ft)	Shaft				80 MPH w/ 1.3 Gust	90MPH w/ 1.3 Gust	100 MPH w/ 1.3 Gust
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Max. EPA (ft ²)	Max. EPA (ft ²)	Max EPA (ft ²)
10	426A090	4.26	11	75	26.7	20.9	15.8
12	454A110	4.54	11	85	25.4	19.8	15.8
14	482A130	4.82	11	100	23.7	18.4	14.7
16	510A150	5.10	11	115	22.4	17.3	13.8
18	538A170	5.38	11	130	21.3	16.4	13.1
20	566A190	5.66	11	140	18.9	14.6	11.6

DS202 NOTES:

1. All designs utilize 0.75" x 1 7/8" x 3" anchor bolts
2. Structure weight is a nominal value which includes the pole shaft and pedestal base only.
3. Pole pedestal base is the same for all designs. See detail drawing for information
4. Maximum fixture weight for all designs is 125 lbs
5. Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-0" above the nominal mounting height.

External & Internal Hinged Poles

DSF10, DSF15, DSF20, DSF35



Product Specifications DSF10, DSF15, DSF20, DSF35

ANCHOR BOLTS

Anchor Bolts are fabricated from carbon steel bar conforming to AASHTO M314 Grade-55 or ASTM F1554 Grade-55. Bolts have an "L" bend on one end and are galvanized a minimum of 12 inches on the threaded end. Four anchor bolts are provided per pole. Each anchor bolt is furnished with two hex nuts and two flat washers.

ANCHOR BASE

The anchor base (base plate) is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom. Please refer to the charted bolt circles and detail drawings to determine the type of hole accommodation made for the anchor bolt.

POLE SHAFT

The pole shaft is fabricated from weldable grade hot rolled commercial quality carbon steel having a guaranteed minimum yield strength of 55,000 psi and is supplied in 11 gauge (.1196") or 7 gauge (.1793") nominal thickness. The pole is of one-piece construction with a full length longitudinal high frequency electric resistance weld. The shaft is square in cross section having flat sides, radiused corners, and a uniform taper of approximately 0.11 inches per foot of length except for 4 inch square poles in the DSF10 series which are not tapered.

HANDHOLE

The reinforcing handhole rim consists of either a nominal 3" x 5" rectangular shaped tubing or 4" x 6.5" oval shaped pipe material. The 3" x 5" handhole is provided with a steel attachment bar, steel cover, and one round head machine screw. The 4" x 6.5" handhole includes two tabs for mounting a steel cover with hex head attachment screws. Both handhole types are welded in the pole shaft and are located 1'-6" above the base.

ELECTRICAL GROUND

A nut holder is provided near the handhole and includes a 0.5"-13 UNC hex head bolt and nut.

SHROUD

The shroud is a weldable grade hot rolled commercial quality carbon steel with a guaranteed minimum yield strength of 45,000 psi and is supplied in 7 Ga. (0.1793") thickness. It is a one-piece formed channel section and conforms to the pole shaft taper. The shroud is attached by a locking device with provisions for a padlock to prevent accidental or unauthorized lowering.

FULL BASE COVER (OPTIONAL)

The optional full base cover is fabricated from ABS plastic. Valmont reserves the right to provide a steel assembly on some applications depending upon the finish requirement and/or pole shaft base diameter. Both steel and plastic covers are a two-piece assembly secured together with two fasteners.

HINGE

The hinge includes a stainless steel pin. A flexible wiring guide is provided, passing through the hinge area for wiring protection. The DSF10 and DSF15 utilize an external hinge. The DSF20 and DSF35 utilize an internal hinge.

POLE TOP TENON (STANDARD)

Pole top tenons are fabricated from structural quality hot rolled carbon steel with a guaranteed minimum yield strength of 30,000 psi. A pole top plate and tenon of weldable grade hot rolled commercial quality carbon steel is circumferentially welded to the top of the pole shaft. This plate provides an internal weather resistant wiring raceway into the pole top tenon. Standard sizes are of either 2.38" O.D. x 4" long (P2) or 4" O.D. x 6" long (P4) steel tubing. See page 1 for other available sizes.

POLE TOP CAP (OPTIONAL)

A removable cap is available as an option to be used in conjunction with drilled pole shafts for accommodation of a direct mounted luminaire arm attachment.

STANDARD FINISH

Standard finishes available are galvanized (DSF10 & DSF15 only), prime coat (powder), and finish coat (powder). For information regarding the scope and application of these coatings please refer to page 5.

FASTENING HARDWARE

All structural fasteners are galvanized

high strength carbon steel. All other fasteners are galvanized or zinc plated carbon steel or stainless steel.

DESIGN

The standards shown in this section are designed to withstand dead loads and theoretical dynamic loads developed by variable wind speeds, as charted, with an appropriate gust factor under the following conditions:

The luminaire(s) and/or mounting bracket(s) center of gravity, or centroid, is assumed to be located a maximum of 2'-6" above the pole top. For purposes of design, effective projected area (EPA) is considered to be the product of the actual projected area and the drag coefficient.

The listed weights include luminaire(s) and/or mounting bracket(s). To operate properly, the DSF10 and DSF20 hinge poles require a minimum weight loading of 50 lbs at the pole top. The DSF15 and DSF35 require 75 lbs.

The wind velocities are based on 10 mph increments from 80 mph through 100 mph (reference wind map). Standards to be located in areas of known abnormal conditions require special consideration. For example: coastal areas, airports, and areas of special winds such as the Chinook type along the eastern slope of the Rocky Mountains.

Standards are designed for ground mounted applications. Standards mounted on structures, such as bridges and buildings, also necessitate special consideration requiring Valmont's recommendation.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the standard. Secondary moments are considered on all designs.

Maximum weight and EPA values are determined by analyzing stress from two wind directions as shown. Due to the increased area and reduced section properties, stress levels across the points generally control the allowable loads.

Valmont Industries, Inc. reserves the right to install various, engineer approved, material hanging accommodations to facilitate the manufacturing process. If this method is not acceptable, Valmont Industries, Inc. must be notified by the customer prior to manufacturing.

DSF10

Nominal Mounting Height (ft)	Shaft				Pole Base			Anchor Bolts	Winch	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Thk. (in)	Dia. x Lngth. x Hk. (in)	Model No.	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
20	** 400F200	4.00	7	300	8.5-10		0.75	.75 x 17 x 3	M180A	11.6	217	8.5	217	6.2	217
25	** 400F250	4.00	7	370	8.5-10		0.75	.75 x 17 x 3	M180A	7.1	160	4.8	160	3.1	160
	641A250	6.41	11	355	12.5		0.88	1.00 x 36 x 4	M136	18.0	254	13.0	254	9.3	254
30	** 400F300	4.00	7	435	8.5-10		0.75	.75 x 17 x 3	M180A	4.0	120	2.1	120	0.8	120
	641A300	6.41	11	440	12.5		0.88	1.00 x 36 x 4	M136	12.5	230	8.3	230	5.1	230
35	718A350	7.18	11	540	13.5		0.88	1.00 x 36 x 4	M135	7.1	160	3.2	160	-	-
	713E350	7.13	7	700	13.5		1.25	1.00 x 36 x 4	M135	22.0	155	16.9	155	12.1	155
39	718A389	7.18	11	555	13.5		0.88	1.00 x 36 x 4	M135	4.3	135	-	-	-	-
	713E389	7.13	7	740	13.5		1.25	1.00 x 36 x 4	M135	19.5	110	13.5	110	9.2	110

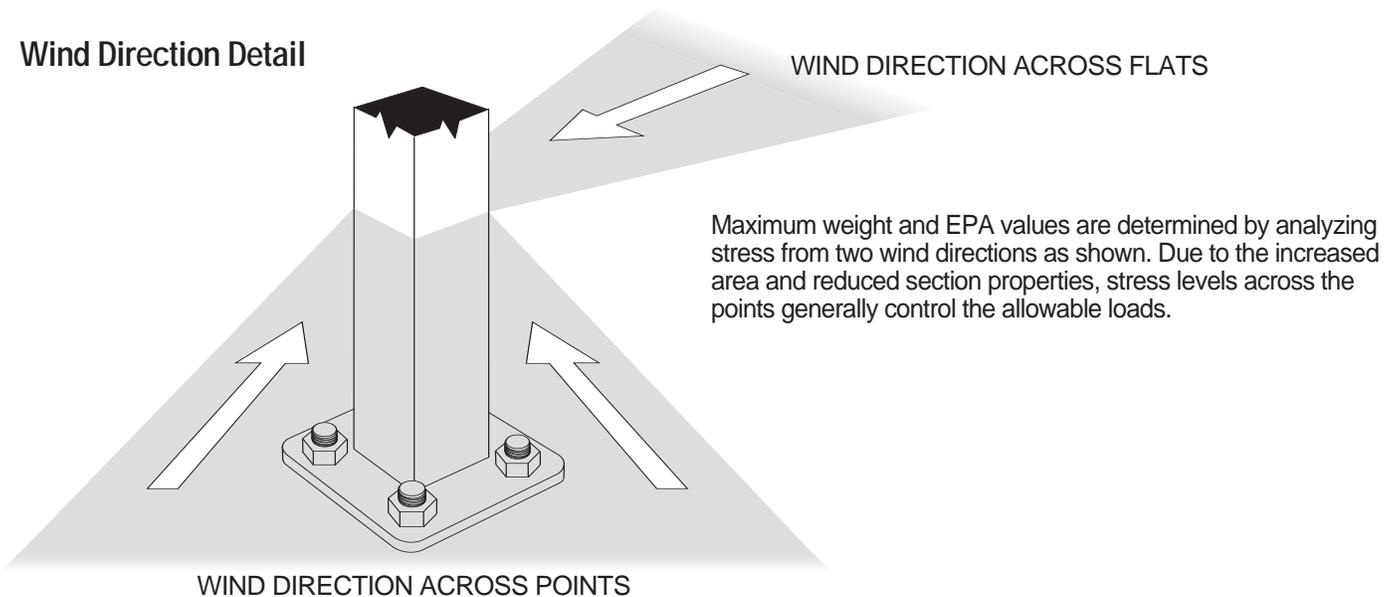
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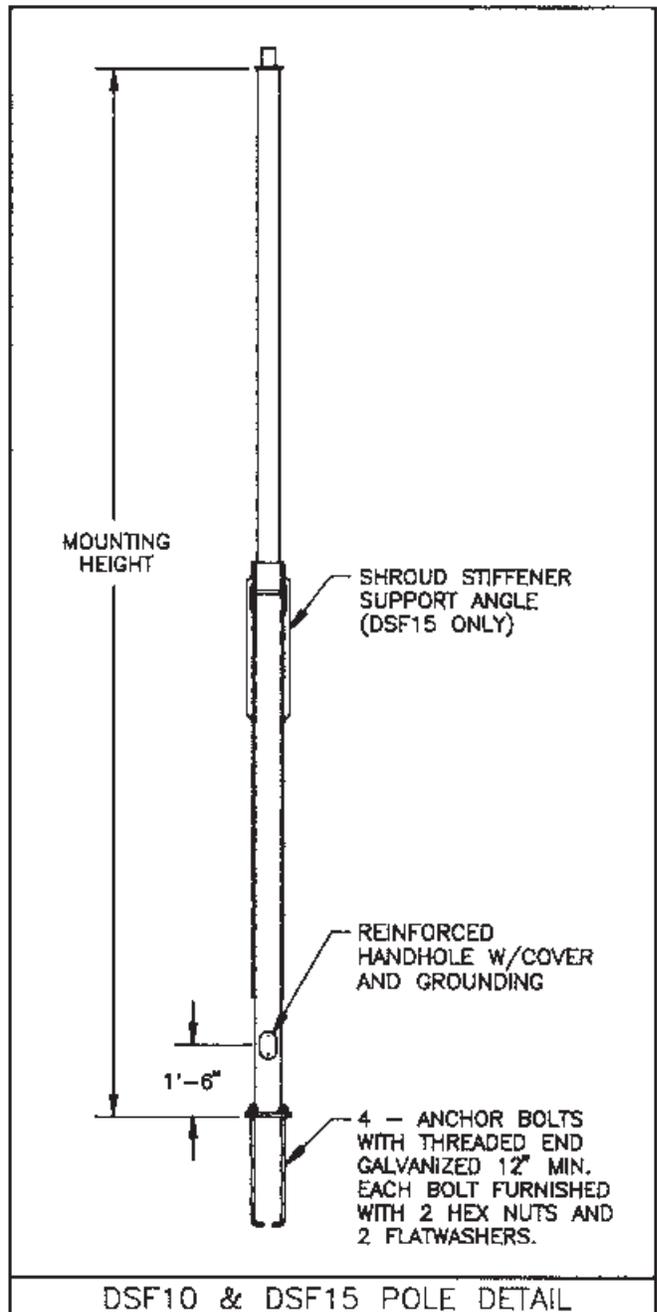
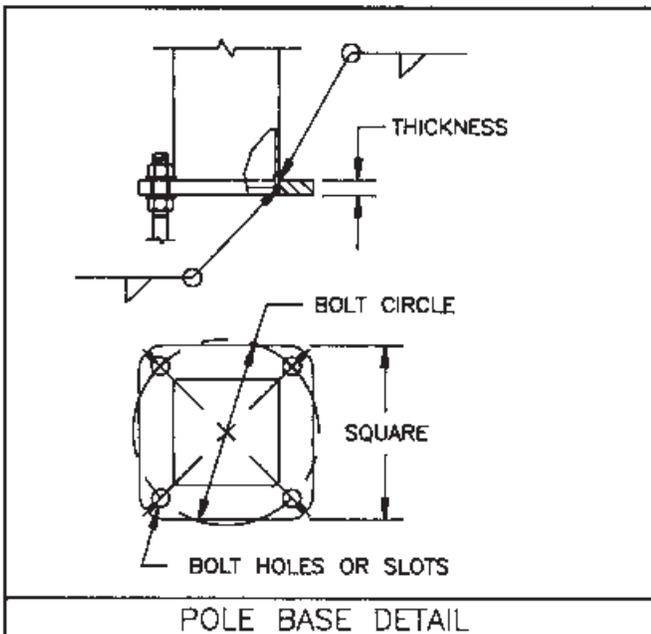
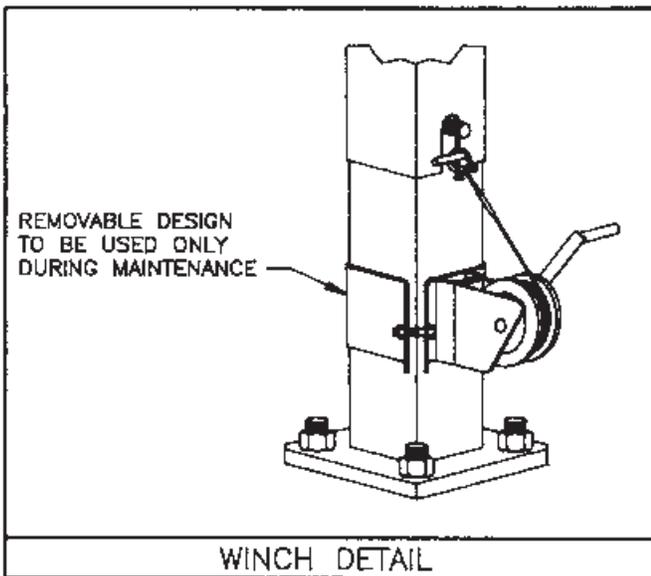
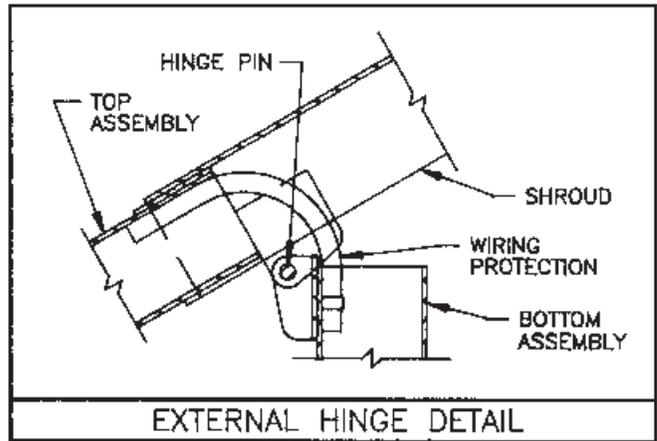
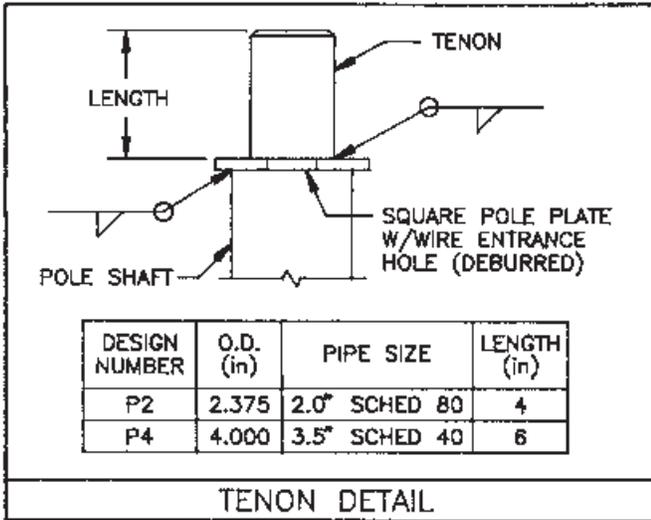
Nominal Mounting Height (ft)	Shaft				Pole Base			Anchor Bolts	Winch	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Thk. (in)	Dia. x Lngth. x Hk. (in)	Model No.	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
25	641A250	6.41	11	355	12.5		0.88	1.00 x 36 x 4	M136	17.5	493	12.6	493	9.0	493
30	641A300	6.41	11	440	12.5		0.88	1.00 x 36 x 4	M136	12.0	446	7.8	446	4.7	446
35	718A350	7.18	11	540	13.5		0.88	1.00 x 36 x 4	M135	6.7	334	3.0	334	-	-
	713E350	7.13	7	700	13.5		1.25	1.00 x 36 x 4	M135	22.0	347	16.4	347	11.7	347
39	718A389	7.18	11	555	13.5		0.88	1.00 x 36 x 4	M135	4.0	295	-	-	-	-
	713E389	7.13	7	740	13.5		1.25	1.00 x 36 x 4	M135	18.9	271	13.1	271	8.9	271

DSF10 & DSF15 NOTES:

- ** 3" x 5" Nominal handhole - all others 4" x 6.5" nominal.
- Structure weight is a nominal value which includes the pole shaft and base plate only.
- The base plate is provided with bolt holes 0.25" larger than the anchor bolt diameter.
- DSF15 design utilizes a shroud stiffener support angle (see drawing).
- Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-6" above the nominal mounting height.
- CAUTION: To prevent damage to the pole the winch cable must be kept taut when raising or lowering the pole.

Wind Direction Detail





DSF20

Nominal Mounting Height (ft)	Shaft				Pole Base			Anchor Bolts	Winch	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Thk. (in)	Dia. x Lngth. x Hk. (in)	Model No.	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
20	** 525A200	5.25	11	160	10.75	10.75	0.75	1.00 x 36 x 4	M136	17.8	200	13.4	200	10.2	150
25	** 600A250	6.00	11	355	12.00	11.50	0.88	1.00 x 36 x 4	M136	7.1	160	4.8	160	3.1	160
30	641A300	6.41	11	430	12.50	11.88	0.88	1.00 x 36 x 4	M136	12.4	200	8.3	150	5.2	100

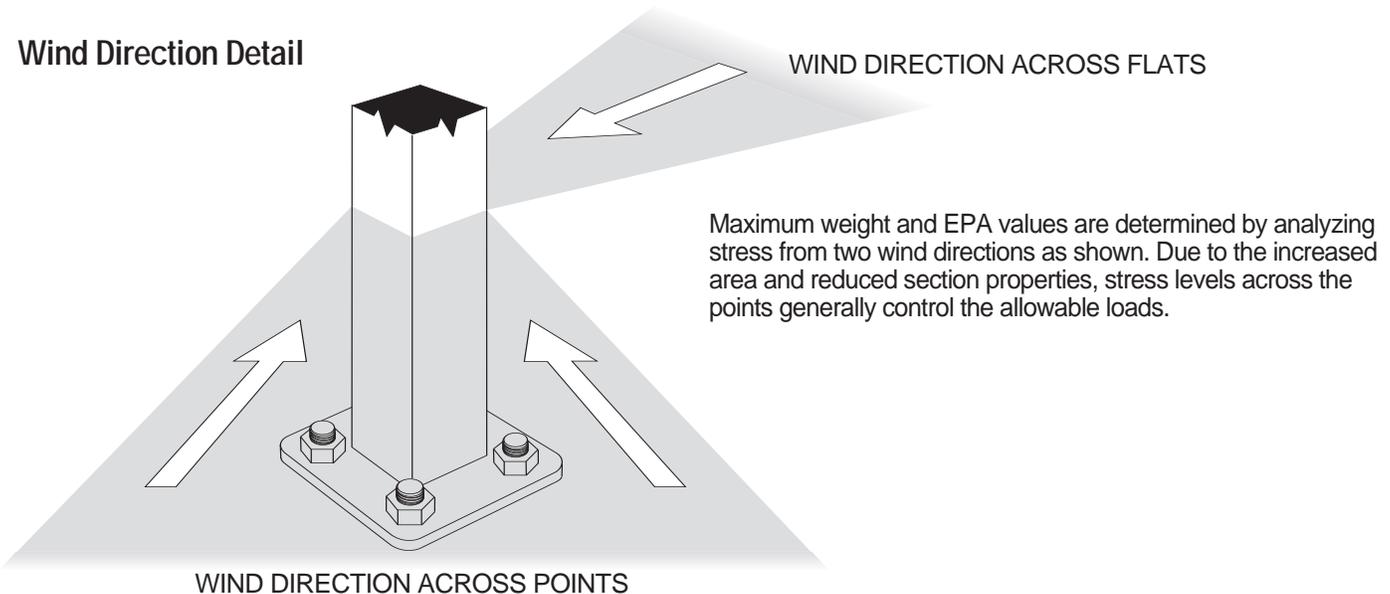
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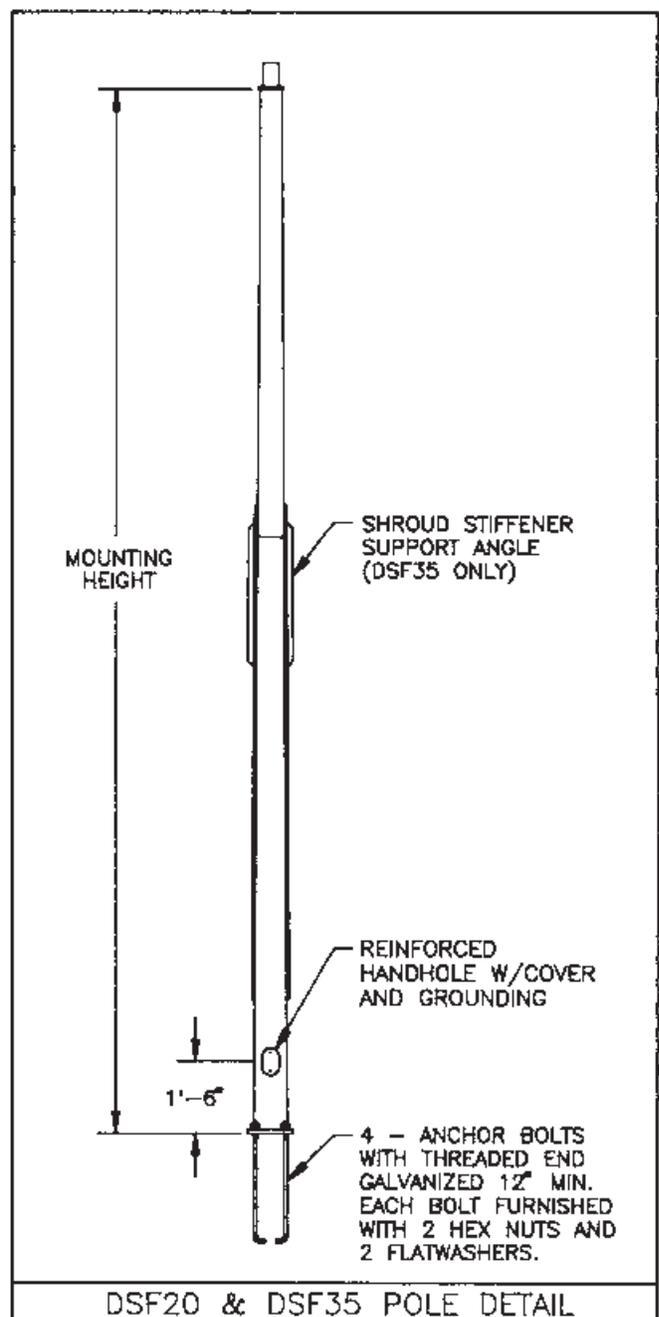
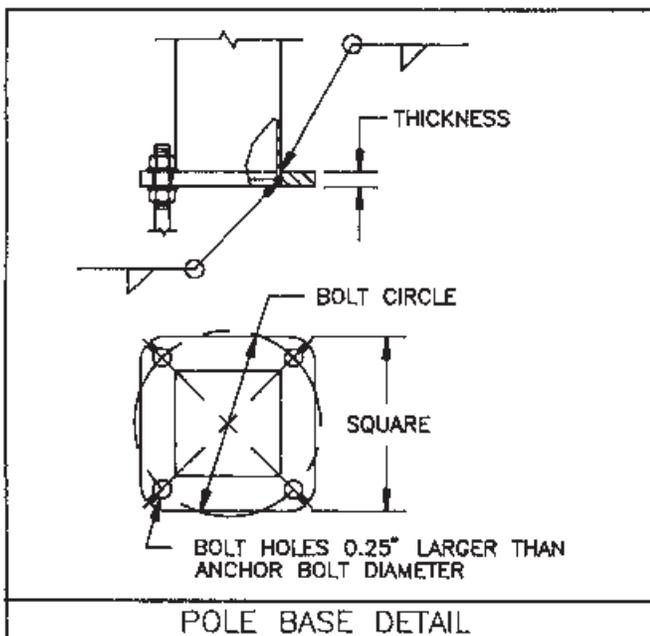
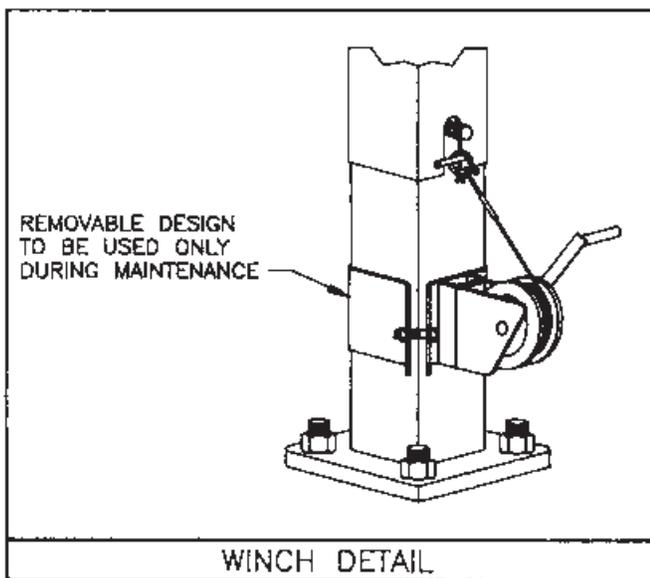
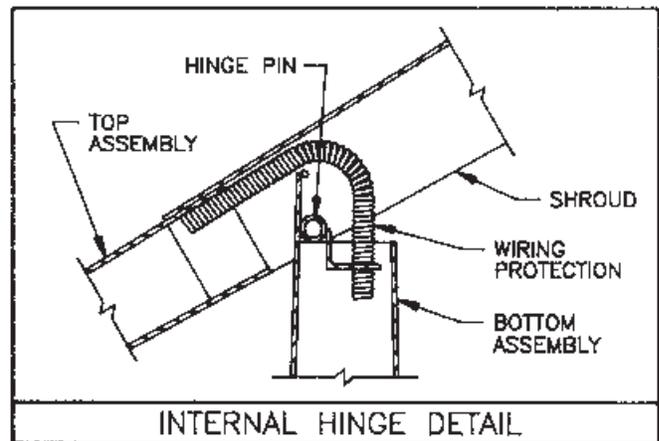
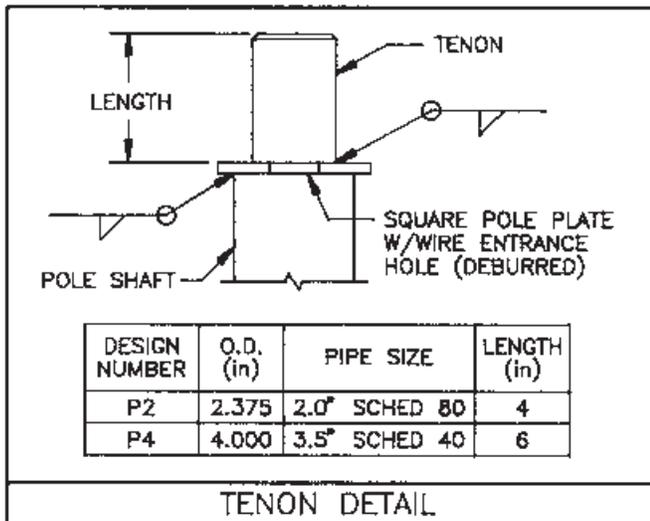
Nominal Mounting Height (ft)	Shaft				Pole Base			Anchor Bolts	Winch	80MPH w/1.3 Gust		90MPH w/1.3 Gust		100MPH w/1.3 Gust	
	Designation Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Bolt Circle		Thk. (in)	Dia. x Lngth. x Hk. (in)	Model No.	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)	Max. EPA (ft ²)	Max. Weight (lbs)
35	713E350	7.13	7	700	13.50	12.63	1.25	1.00 x 36 x 4	M135	22.0	300	16.3	250	11.8	175
38	788E389	7.88	7	820	14.50	13.38	1.25	1.00 x 36 x 4	M135	20.7	300	14.5	250	9.9	200

DSF10 & DSF15 NOTES:

- **3" x 5" Nominal handhole - all others 4" x 6.5" nominal.
- Structure weight is a nominal value which includes the pole shaft and base plate only.
- The base plate is provided with bolt holes 0.25" larger than the anchor bolt diameter.
- DSF35 design utilizes a shroud stiffener support angle, (see drawing).
- Maximum weight and EPA values are based on top mounted luminaires and/or brackets having a centroid 2'-6" above the nominal mounting height.
- CAUTION: To prevent damage to the pole the winch cable must be kept taut when raising or lowering the pole.

Wind Direction Detail

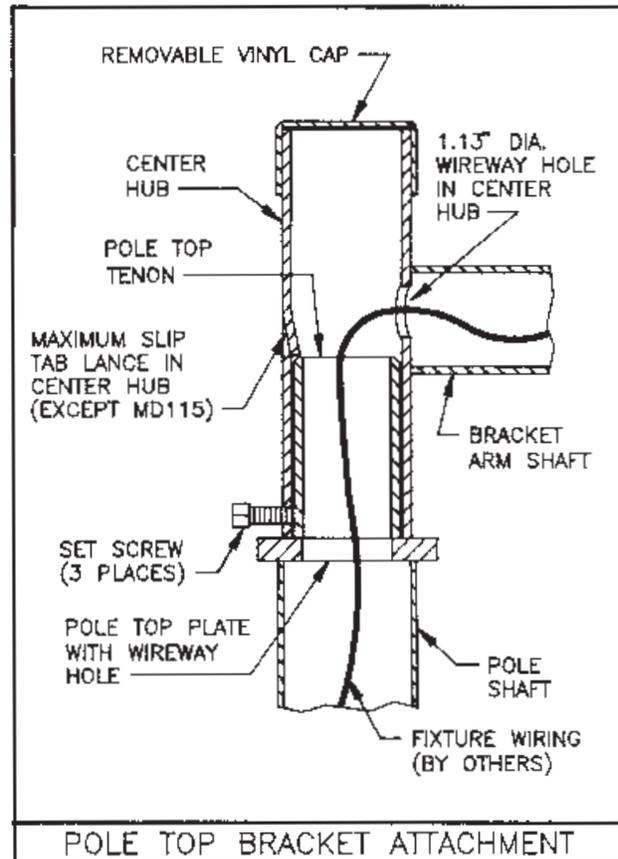
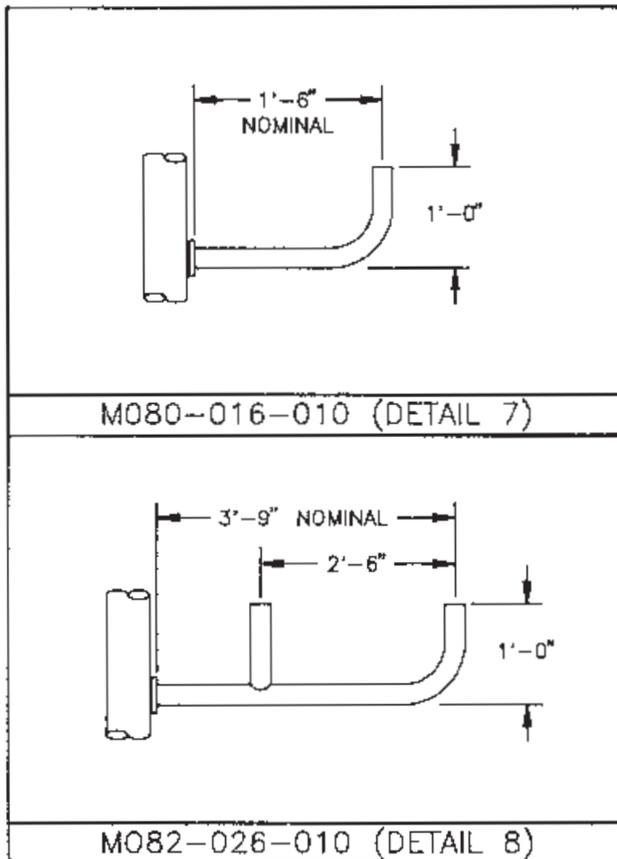


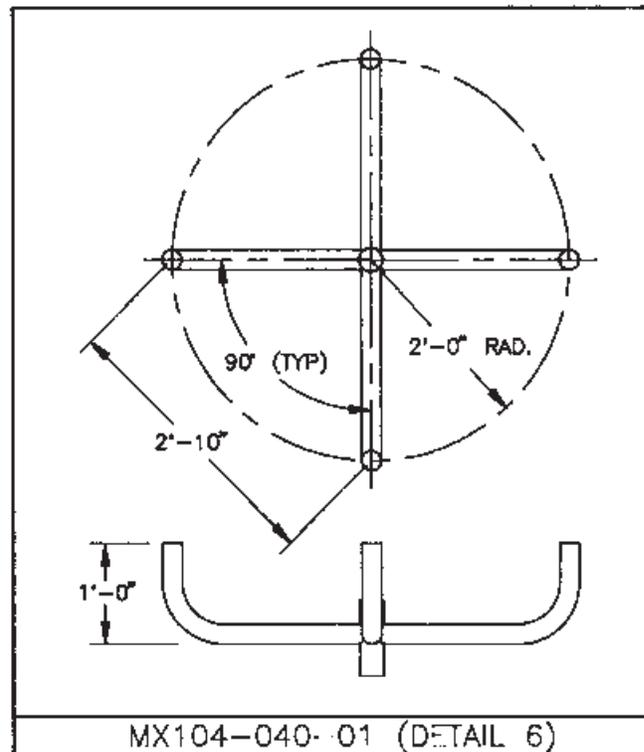
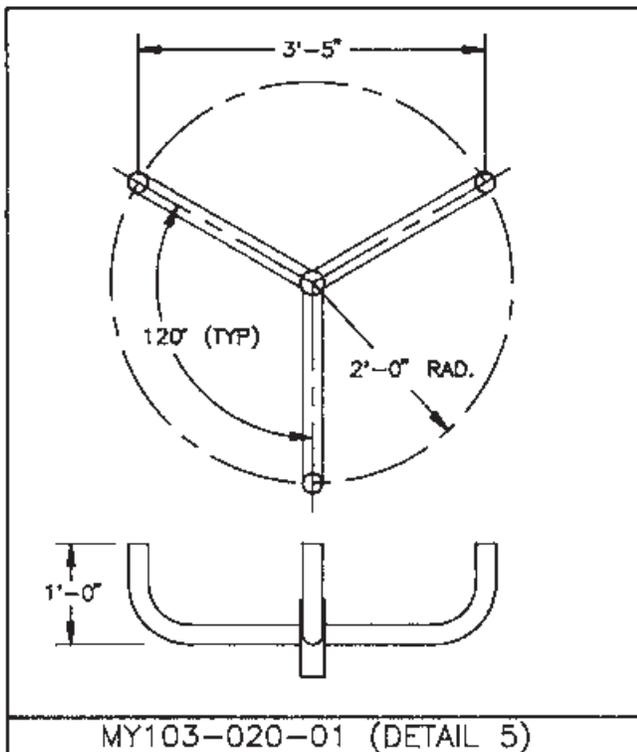
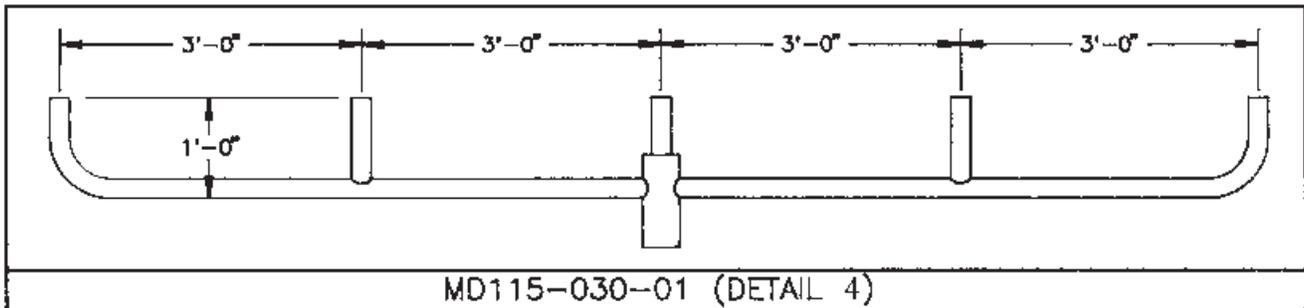
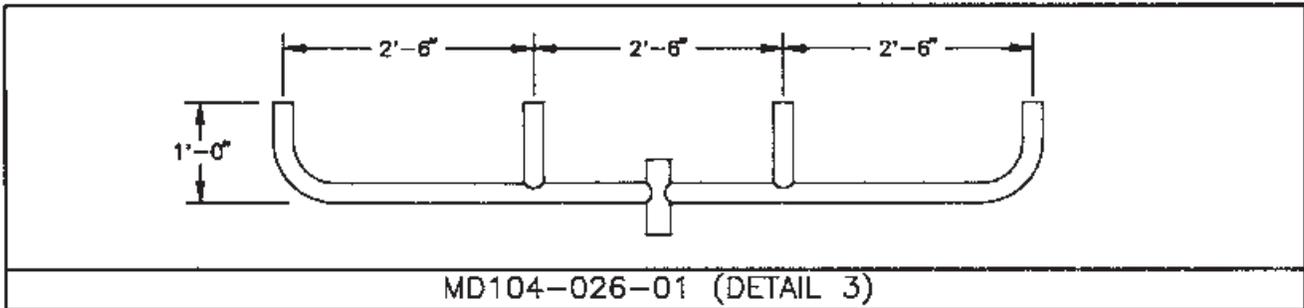
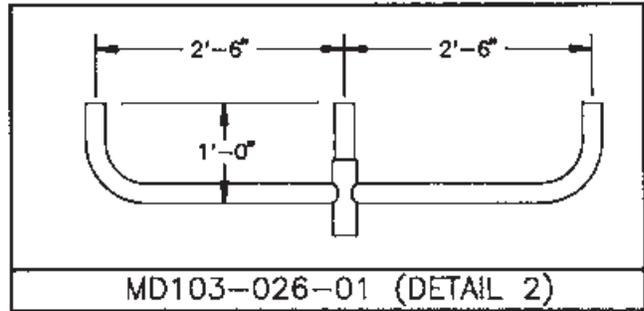
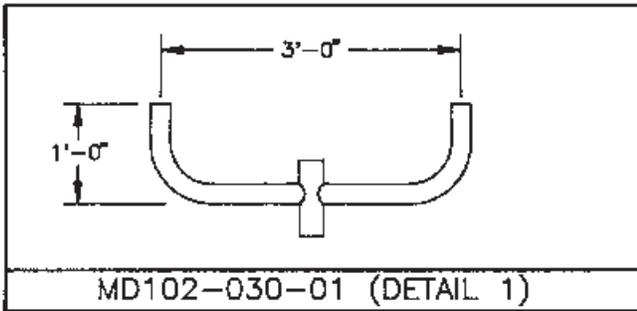


Number of Mounting Locations	Design Number	Orientation	Detail Number	Bracket Size		Max. Size of Luminaire	
				Weight (lbs)	EPA (ft ²)	Weight (lbs)	EPA (ft ²)
1	**M080-016-010	N/A	7	11	0.5	100	5.0
2	**M082-026-010	180	8	20	1.1	100	3.0
	MD102-030-01	180	1	21	1.0	150	7.3
3	MD103-026-01	180	2	32	1.6	150	4.7
	MY103-020-01	120	5	34	1.3	150	4.7
4	MD104-026-01	180	3	44	2.3	150	3.4
	MX104-040-01	90	6	44	1.6	150	3.5
5	MD115-030-01	180	4	86	3.5	100	3.0

BULLHORN NOTES:

1. The maximum straight luminaire slipfit length is 4.63" for all arm brackets. Consult factory for other tenon applications.
2. Total combined weight and EPA of brackets and luminaires cannot exceed that allowed on pole ordered.
3. Adjacent tenon spacing and fixture dimensions must be compared for proper clearance between fixtures.
4. **= Side mounted brackets utilize single bolt simplex connection (see below details).
5. Maximum luminaire weight and EPA values are based on a 100 mph wind speed w/1.3 gust factor and maximum 70' mounting height.
6. MATERIAL: Center Hub = 2.5" schedule 40 pipe / Arms = 2.0" schedule 40 pipe.
7. MD115 MATERIAL: Center Hub = 4.0" schedule 40 pipe / Arms = 2.0" schedule 80 pipe.

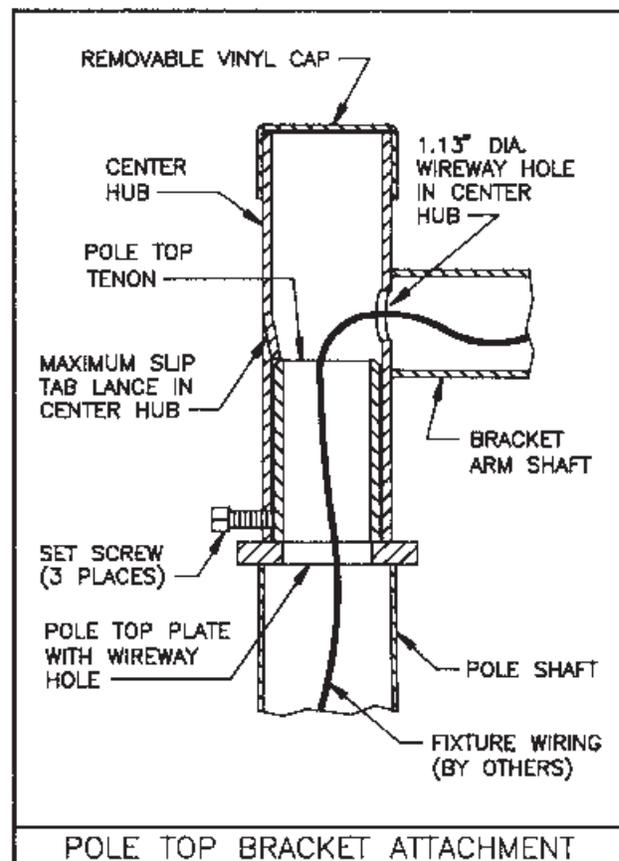
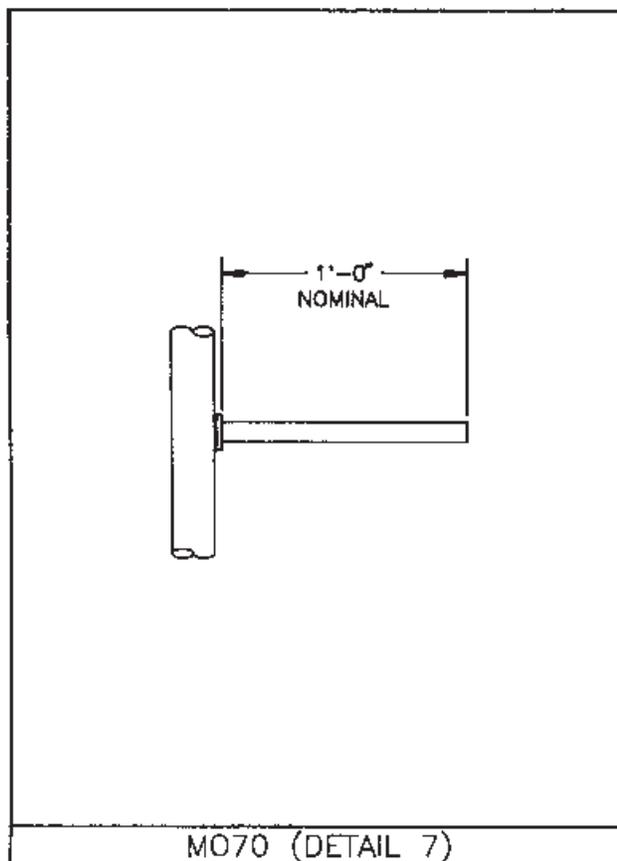


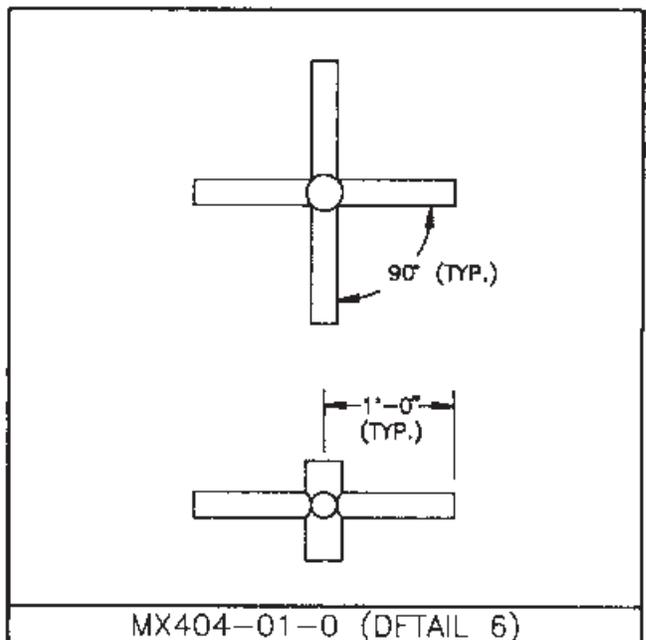
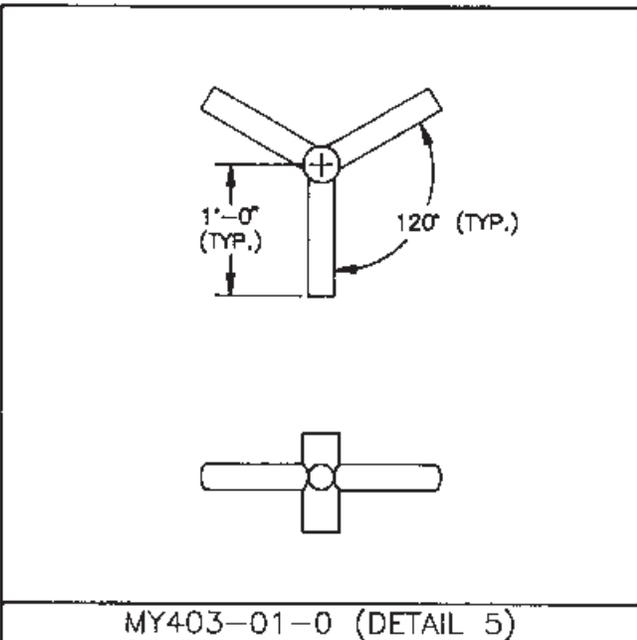
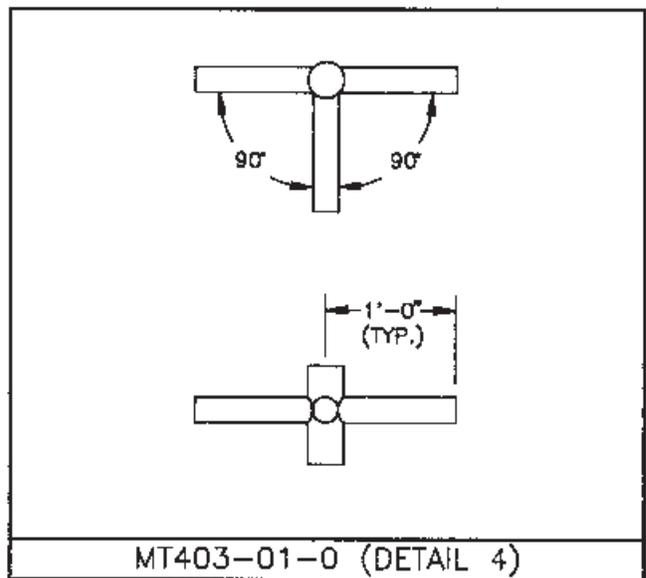
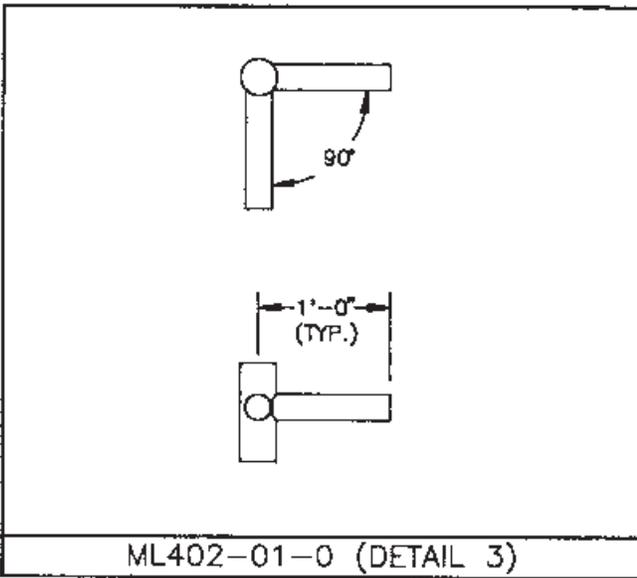
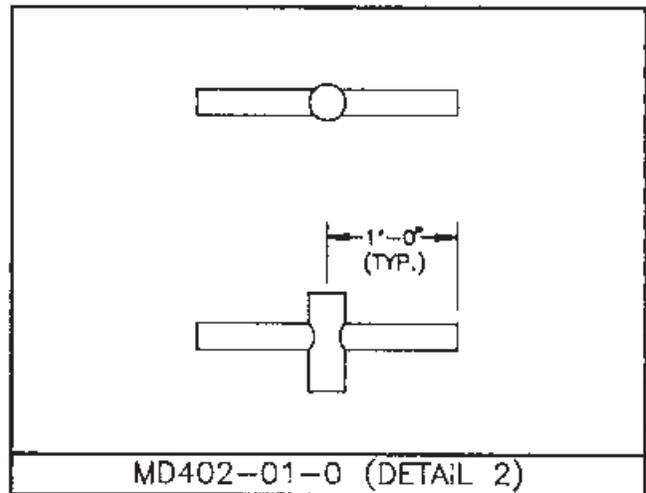
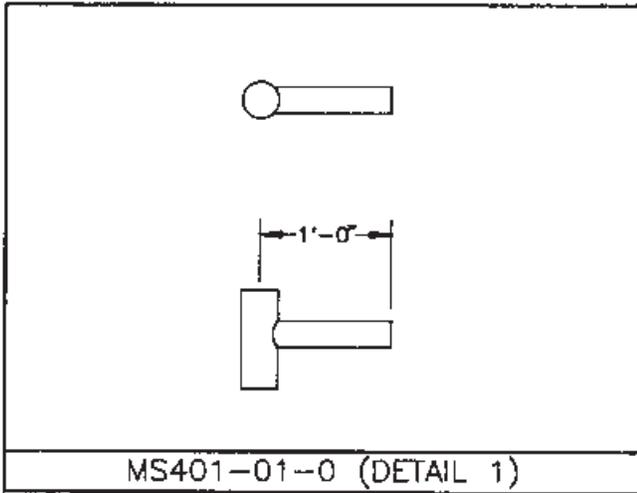


Number of Mounting Locations	Design Number	Orientation	Detail Number	Bracket Size		Max. Size of Luminaire	
				Weight (lbs)	EPA (ft ²)	Weight (lbs)	EPA (ft ²)
1	MS401-01-0	N/A	1	8	0.3	125	6.0
	** M070	N/A	7	9	0.3	125	6.0
2	MD402-01-0	180	2	11	0.4	125	6.0
	ML402-01-0	90	3	11	0.4	125	6.0
3	MT403-01-0	90	4	15	0.5	125	6.0
	MY403-01-0	120	5	15	0.5	125	6.0
4	MX404-01-0	90	6	18	0.6	125	6.0

SPOKE NOTES:

1. The maximum straight luminaire slipfit length is 10.50" for all arms brackets.
2. Total combined weight and EPA of brackets and luminaires cannot exceed that allowed on pole ordered.
3. ** - Side mounted bracket utilizes single bolt simplex (see below detail)
4. Maximum Luminaire weight and EPA values are based on a 100 mph wind speed w/1.3 gust factor and maximum 70 mounting height.
5. **MATERIAL:** Center Hub - 2.5" schedule 40 pipe / Arms - 2.0" schedule 40 pipe.

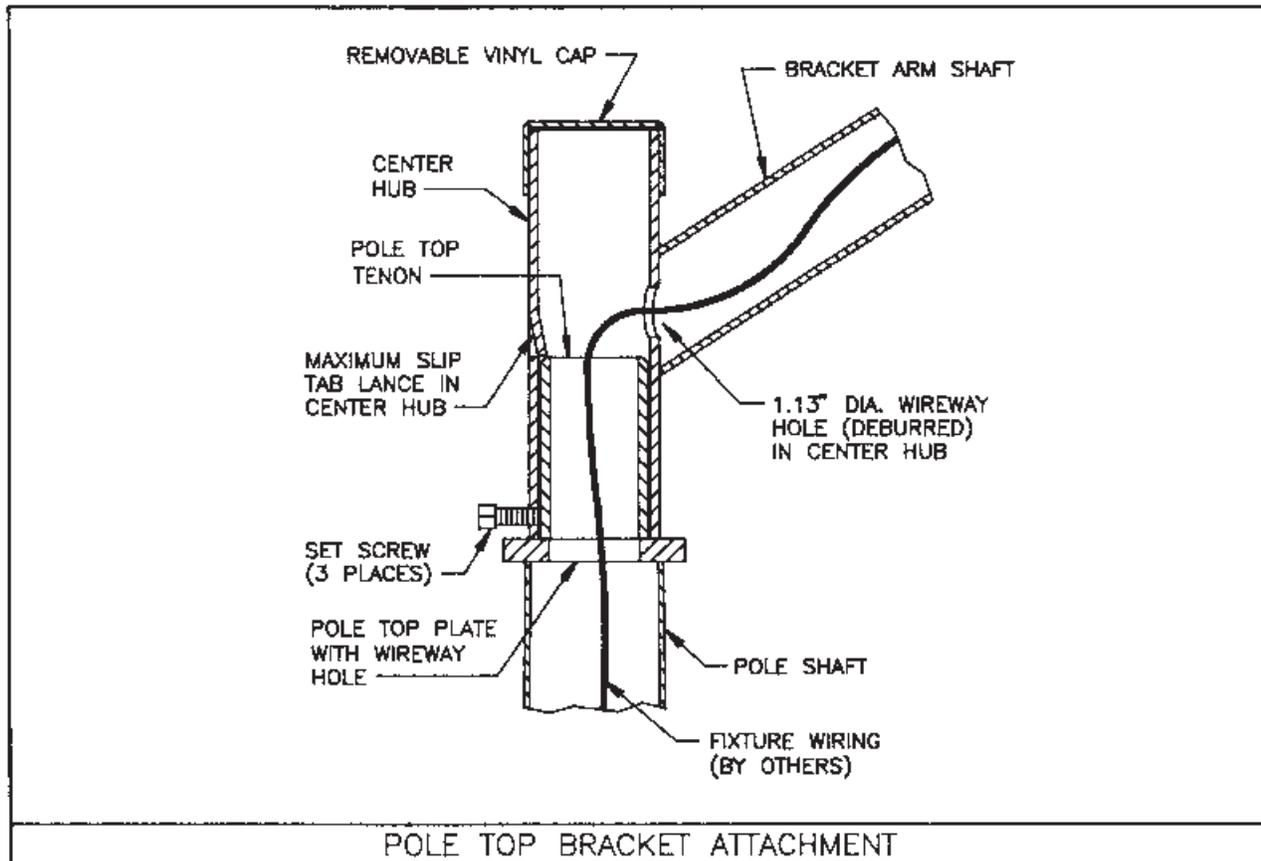


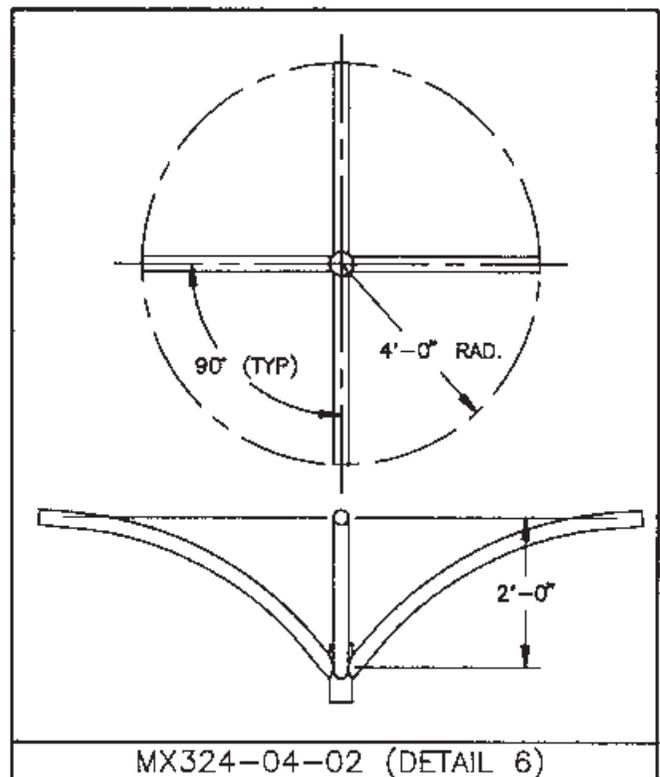
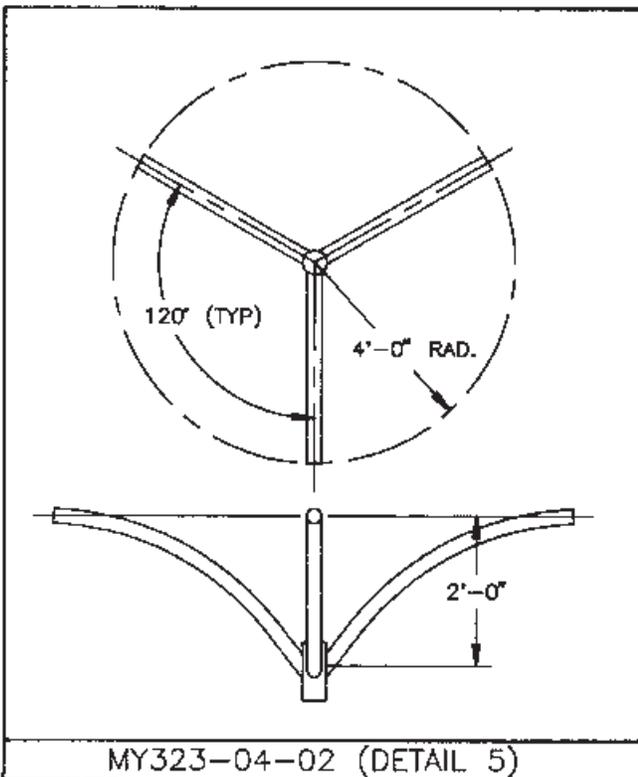
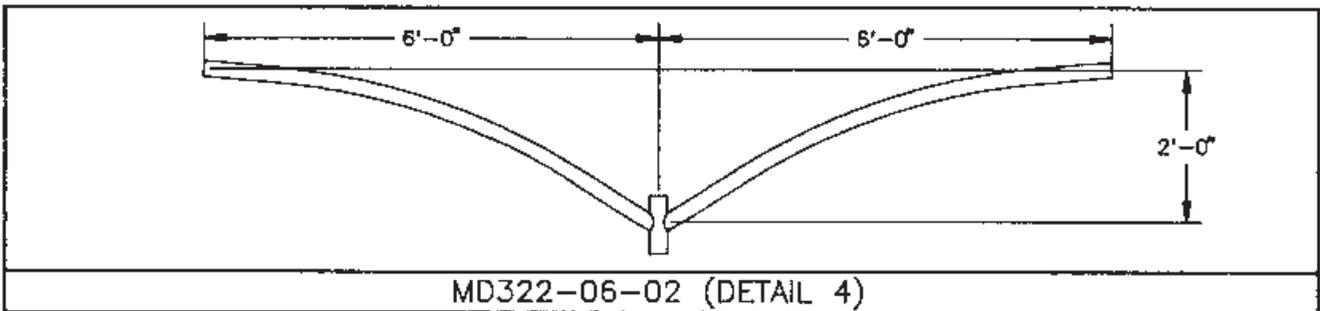
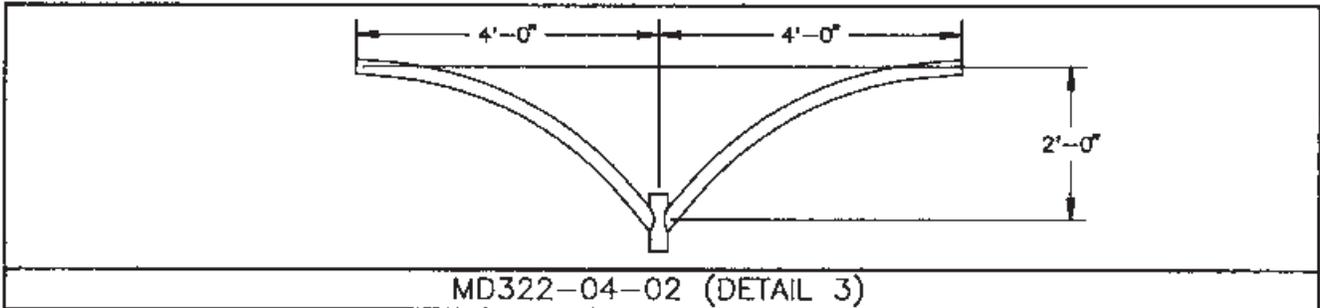
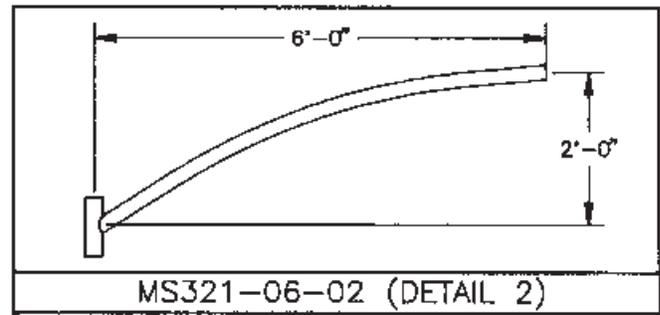
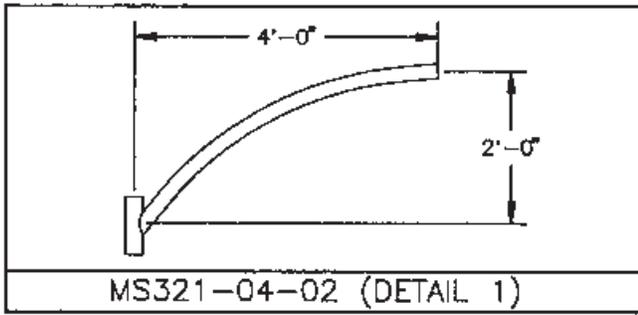


Number of Mounting Locations	Design Number	Orientation	Detail Number	Bracket Size		Max. Size of Luminaire	
				Weight (lbs)	EPA (ft ²)	Weight (lbs)	EPA (ft ²)
1	MS321-04-02	N/A	1	22	1.1	75	2.0
	MS321-06-02	N/A	2	29	1.5	75	2.0
2	MD322-04-02	180	3	40	2.1	75	2.0
	MD322-06-02	180	4	54	2.8	75	2.0
3	MY323-04-02	120	5	57	1.8	75	2.0
4	MX324-04-02	90	6	75	2.8	75	2.0

UPSWEEP NOTES:

1. The maximum straight luminaire slipfit length is 6" for all 4' arms and 12" or all 6' arms on above brackets.
2. Total combined weight and EPA of brackets and luminaires cannot exceed that allowed on pole ordered.
3. Maximum Luminaire weight and EPA values are based on a 100 mph wind speed w/1.3 gust factor and maximum 70' mounting height.
4. **MATERIAL:** Center Hub = 2.5' schedule 40 pipe / Arms = 2.0" schedule 40 pipe.

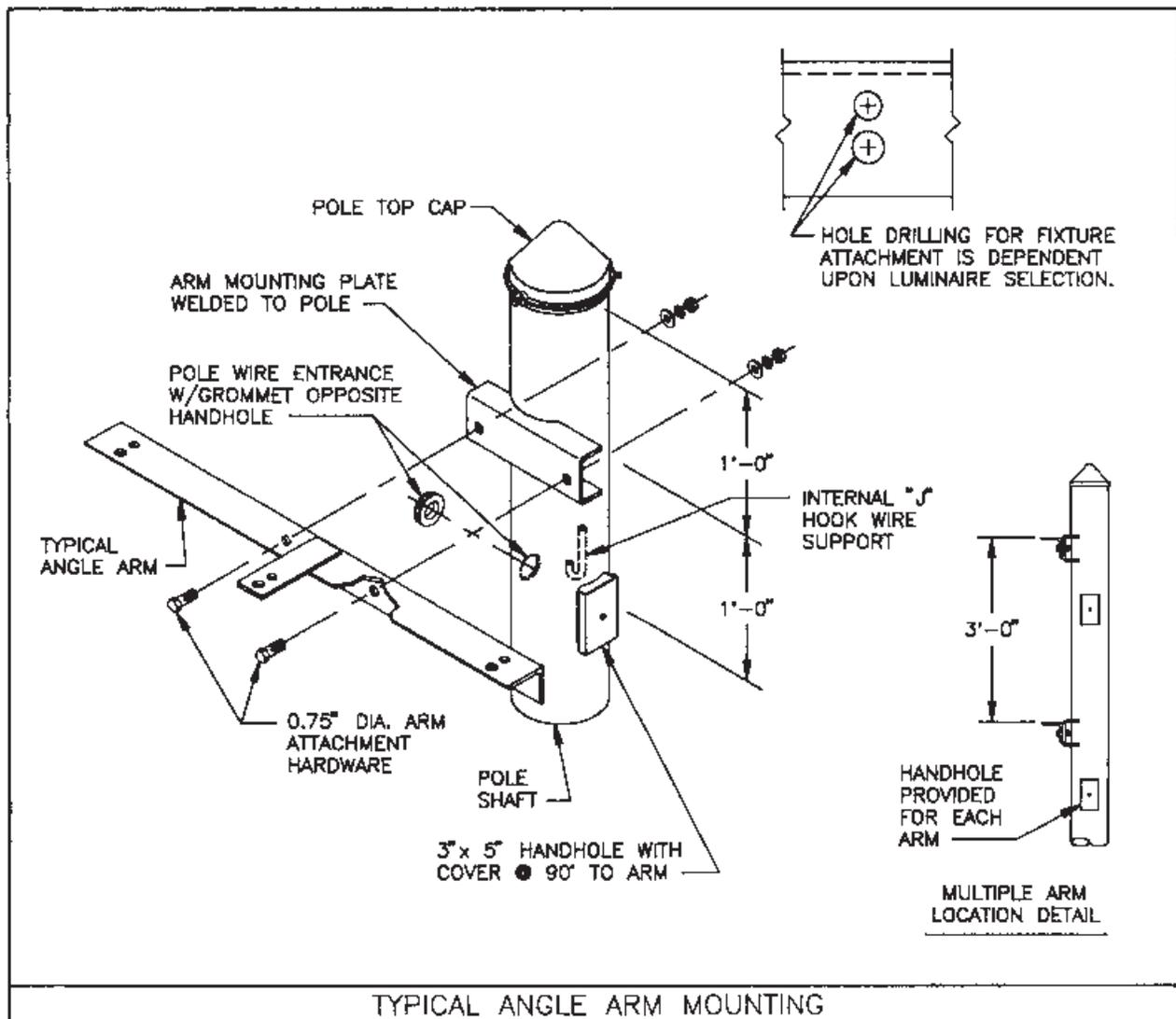


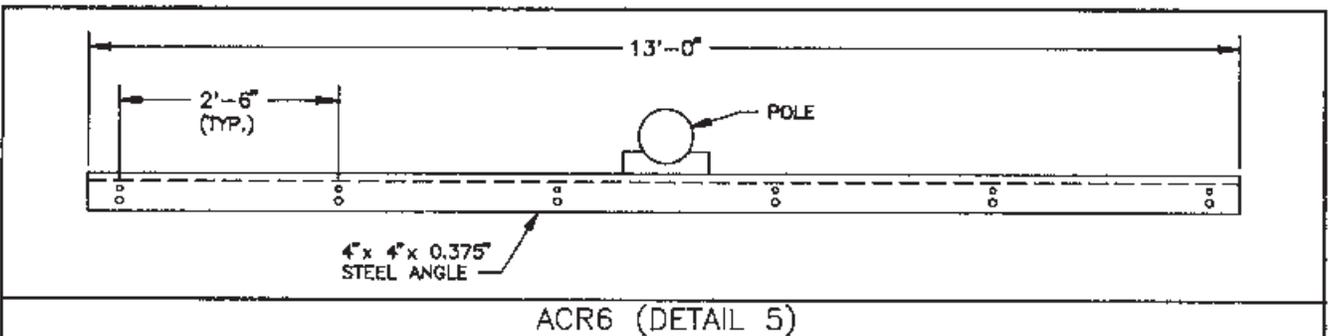
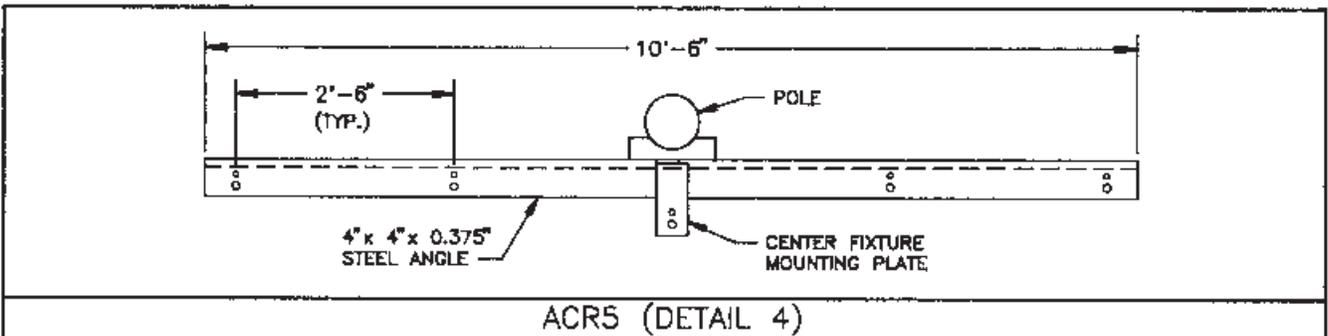
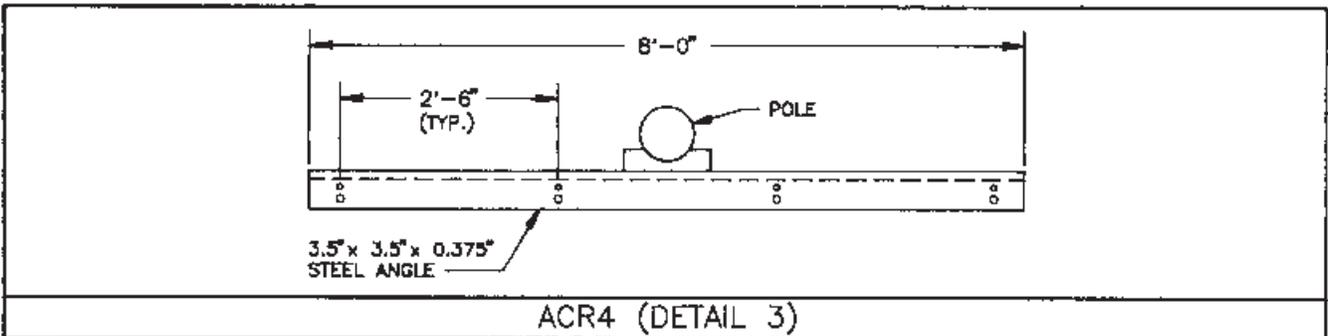
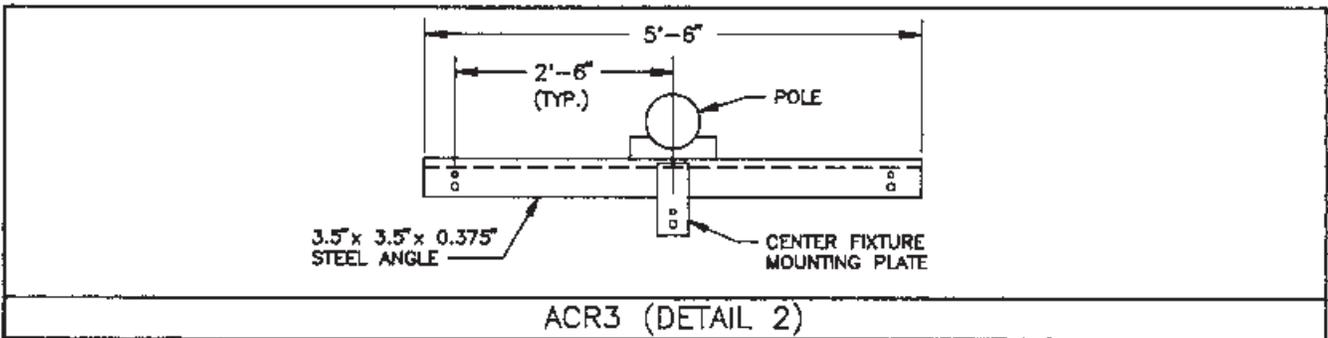
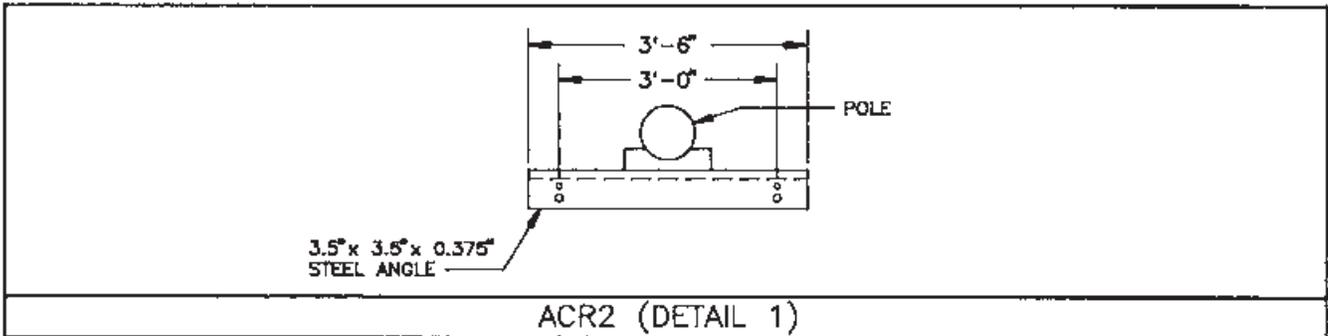


Number of Mounting Locations	Design Number	Detail Number	Bracket Size				Max. Size of Luminaire	
			Weight (lbs)	Max EPA (ft ²)	Angle Material Size (in)	Total Length (ft)	Weight (lbs)	EPA (ft ²)
2	ACR2	1	30	1.74	3.5 x 3.5 x .38	3.5	75	3.1
3	ACR3	2	47	2.73	3.5 x 3.5 x .38	5.5	75	3.1
4	ACR4	3	68	3.97	3.5 x 3.5 x .38	8.0	75	3.1
5	ACR5	4	103	5.95	4.0 x 4.0 x .38	10.5	75	3.1
6	ACR6	5	127	7.37	4.0 x 4.0 x .38	13.0	75	3.1

ACR NOTES:

1. Total combined weight and EPA of brackets and luminaires cannot exceed that allowed on pole selected.
2. Spacing between fixture mounting locations must be compared against actual fixture dimensions to determine proper clearance.
3. Maximum luminaire weight and EPA values are based on a 100 mph wind speed w/1.3 gust factor and maximum 80' mounting height.
4. On ACR3 and ACR5 designs, the center fixture is slightly offset to allow for pole to luminaire clearance. Offset is approximately 8".





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Anchor Bolt Projection	69
Pole Top Caps	70
Simplex Connections	71
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Electrical Grounding Holder	73

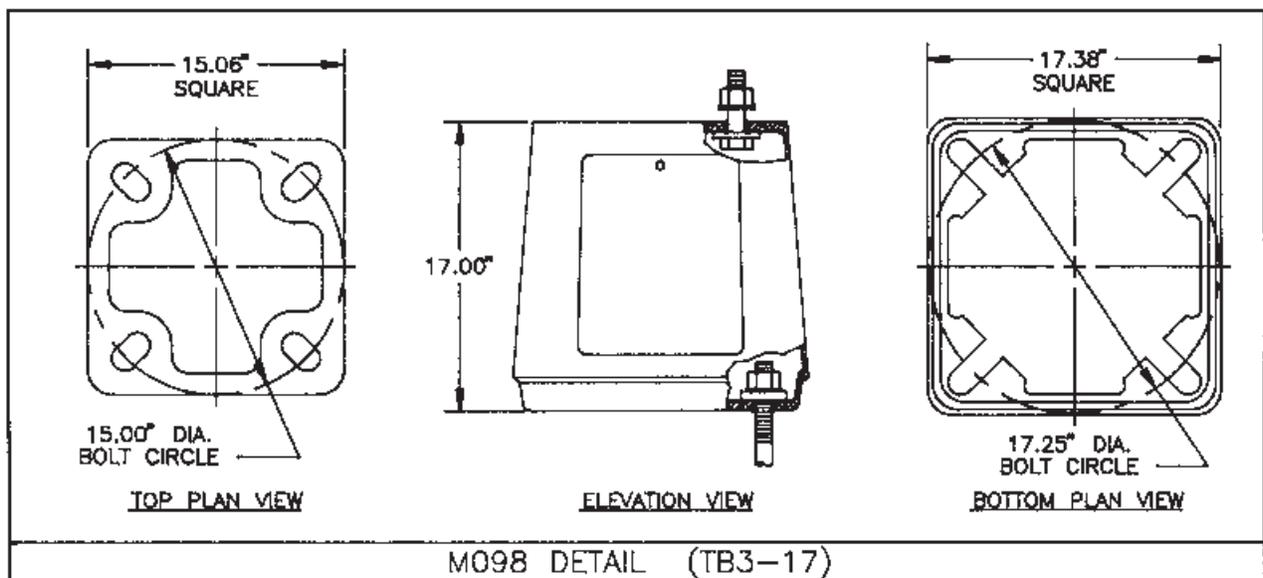
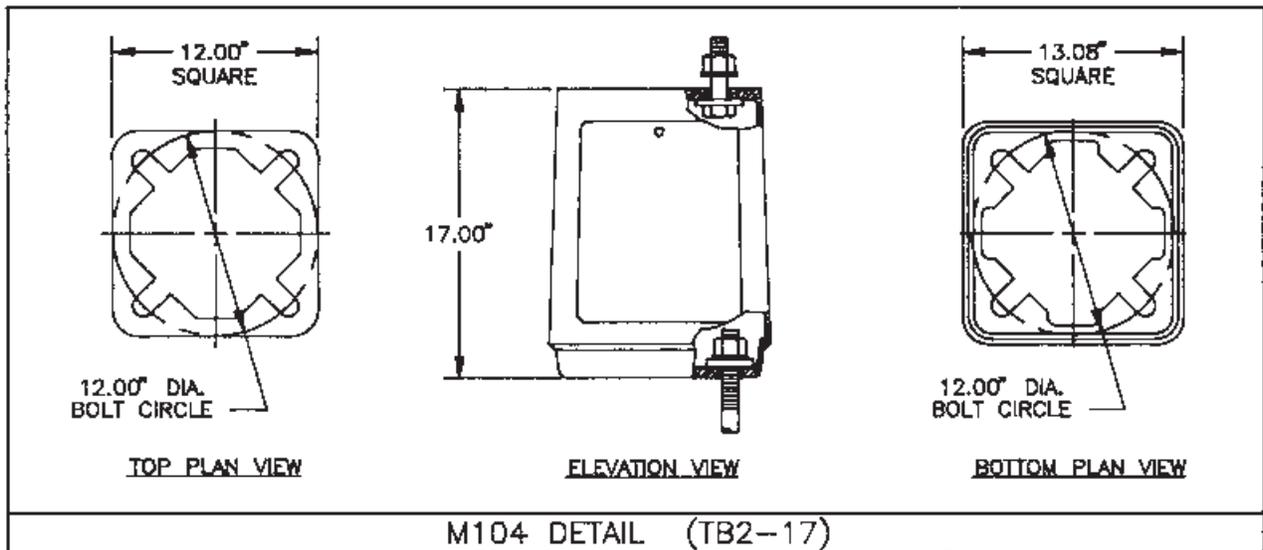
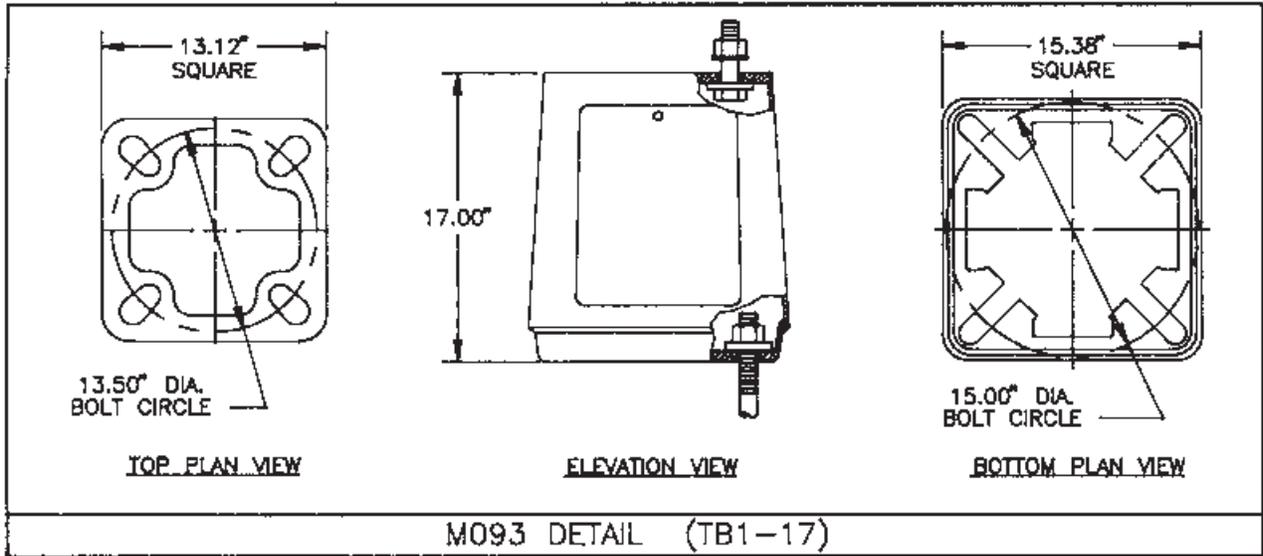
Aluminum Transformer Base

The in service limitations of the aluminum transformer bases as charted below and detailed on the adjoining page are in compliance with the Federal Highway Administration's (FHWA) acceptance for use stipulations as they have issued for each base and Valmont's full scale testing of each base to satisfy the structural requirements of the 1994 edition of the American Association of State Highway and Transportation Officials' (AASHTO) 'Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals'. All other field controlled breakaway requirements are the responsibility of the purchaser or his/her representative.

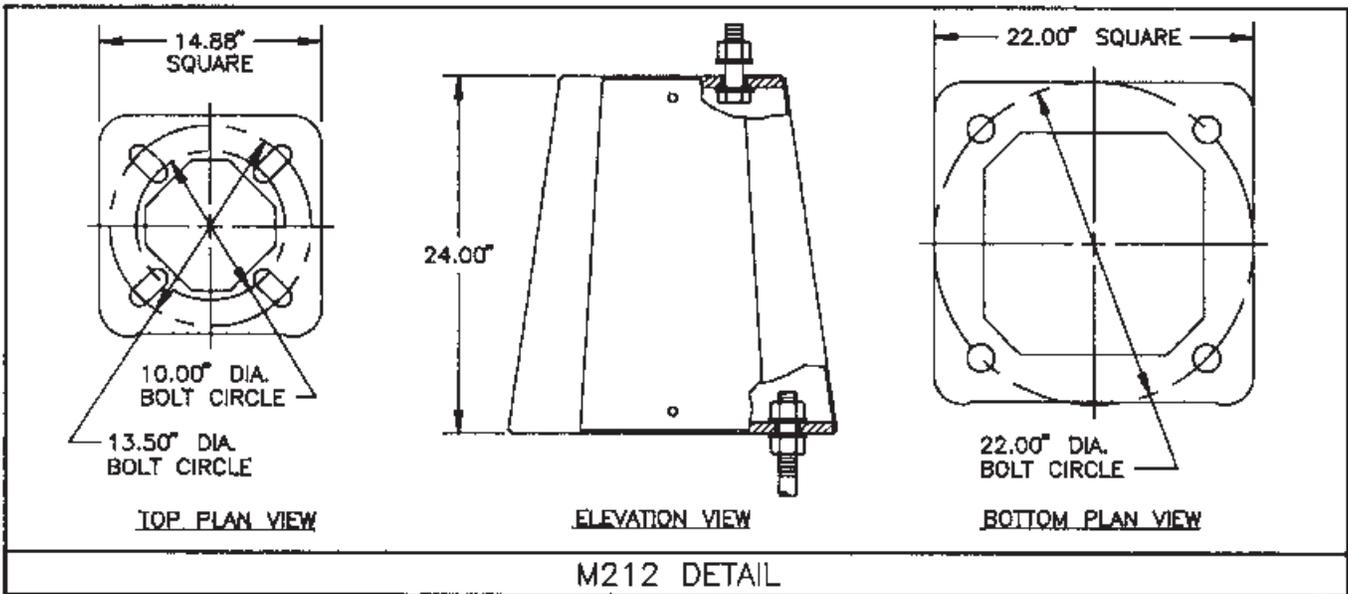
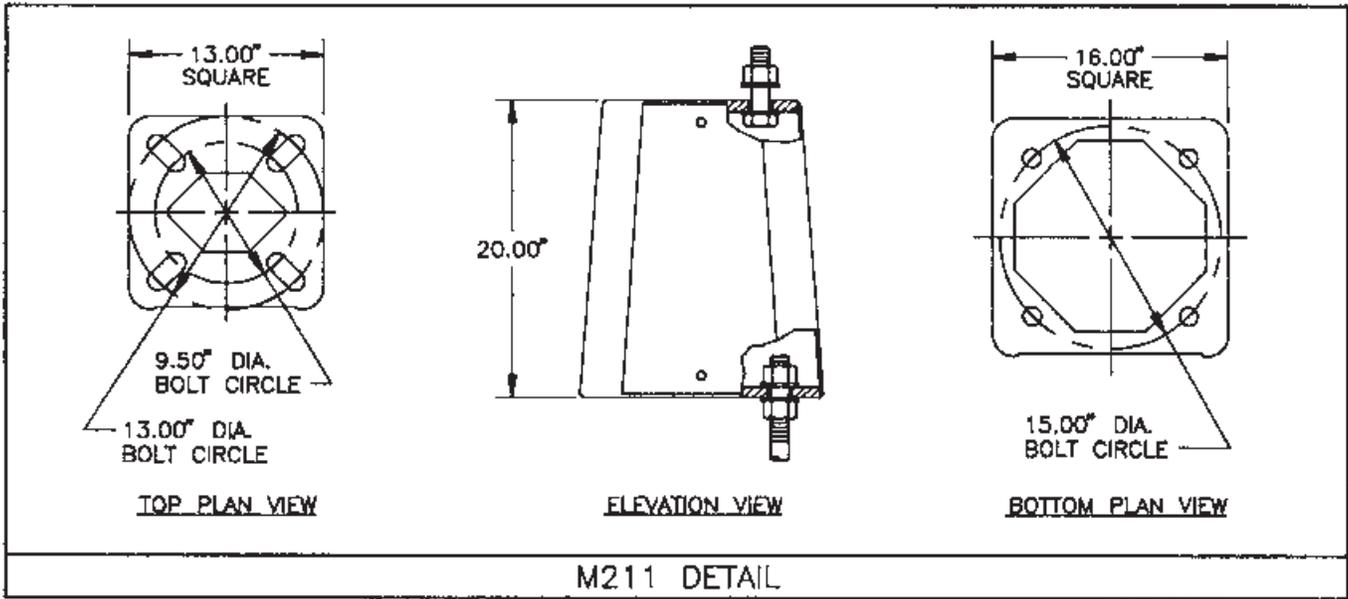
DISCLOSURE	M093 (TB1-17)	M104 (TB2-17)	M098 (TB3-17)
Maximum Lum. Mtg. Ht.	55' - 5"	40' - 10"	55' - 5"
Maximum Pole, Mast Arm & Luminaire Combined Wt.	950 lbs.	550 lbs.	900 lbs.
Transformer Base Bottom Bolt Circle	Load Case #1: 15" Load Case #2: 14"	Load Case #1: 12" Load Case #2: 11" Load Case #3: 10"	Load Case #1: 17 1/4" Load Case #2: 15"
Transformer Base Bottom Anchor Bolt Diameter	1" Maximum	1" Maximum	1 1/4" Maximum
Transformer Base Bottom Anchor Bolt, Steel Washer Size	2 3/4" ± 1/16" O.D. x 1/2" ± 1/32" Thick	2 3/4" ± 1/16" O.D. x 1/2" ± 1/32" Thick	2 3/4" ± 1/16" O.D. x 1/2" ± 1/32" Thick
Transformer Base Top Bolt Circle	Load Case #1: 13 1/2" Load Case #2: 12'	Load Case #1: 12" Load Case #2: 11" Load Case #3: 10"	Load Case #1: 15 1/8" Load Case #2: 13'
Transformer Base Top Connecting Bolt Diameter	1" Maximum	1" Maximum	1 1/4" Maximum
Transformer Base Top Connecting Bolt, Steel Washer Size	2 1/2" ± 1/16" O.D. x 3/8" ± 1/32" Thick	2 1/2" ± 1/16" O.D. x 3/8" ± 1/32" Thick	2 1/2" ± 1/16" O.D. x 3/8" ± 1/32" Thick
Maximum Allowable Moment That Can Be Applied At Top of Base	Load Case #1: 24,100 ft.-lbs. Load Case #2: 18,830 ft.-lbs.	Load Case #1: 21,450 ft.-lbs. Load Case #2: 17,800 ft.-lbs. Load Case #3: 14,160 ft.-lbs.	Load Case #1: 32,850 ft.-lbs. Load Case #2: 22,410 ft.-lbs.
Pole Base Plate Thickness	Load Case #1: 1.25" Min. Load Case #2: 1.25" Min.	Load Case #1: 1.00" Min. Load Case #2: 0.88" Min. Load Case #3: 0.88" Min.	Load Case #1: 1.25" Min. Load Case #2: 1.00" Min.
Pole Base Plate Square	Load Case #1: 13.13" Min. Load Case #2: 12.00" Min.	Load Case #1: 12.00" Min. Load Case #2: 11.50" Min. Load Case #3: 10.88" Min.	Load Case #1: 15.13" Min. Load Case #2: 12.50" Min.

BREAKAWAY NOTES:

1. All designs above - level with shims only - **DO NOT USE LEVELING NUTS.**
2. As noted within the above documentation there are specific limitations to aluminum breakaway transformer bases and the lighting standards that can be used in conjunction with these devices. It is recommended you consult Valmont when evaluating their use.



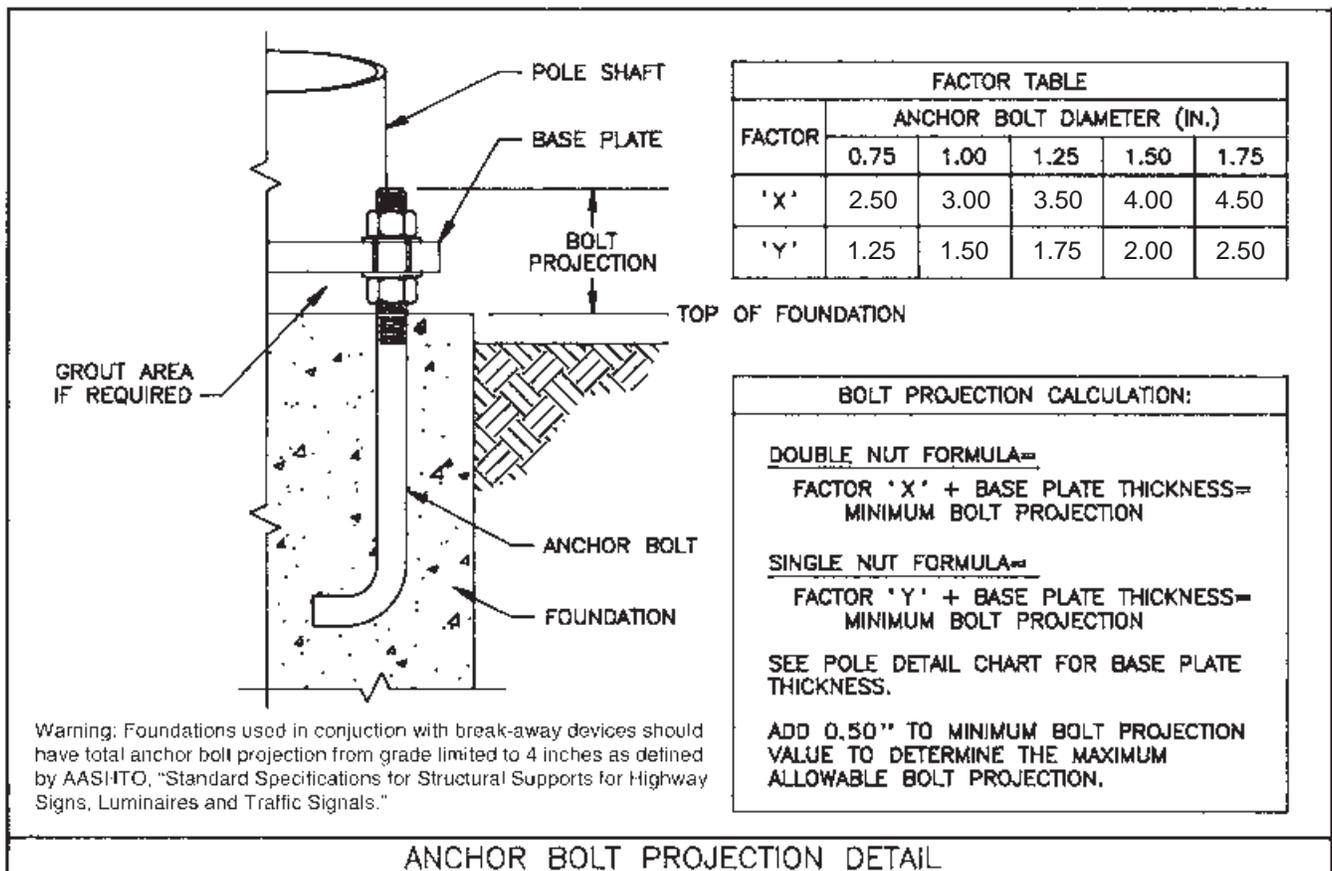
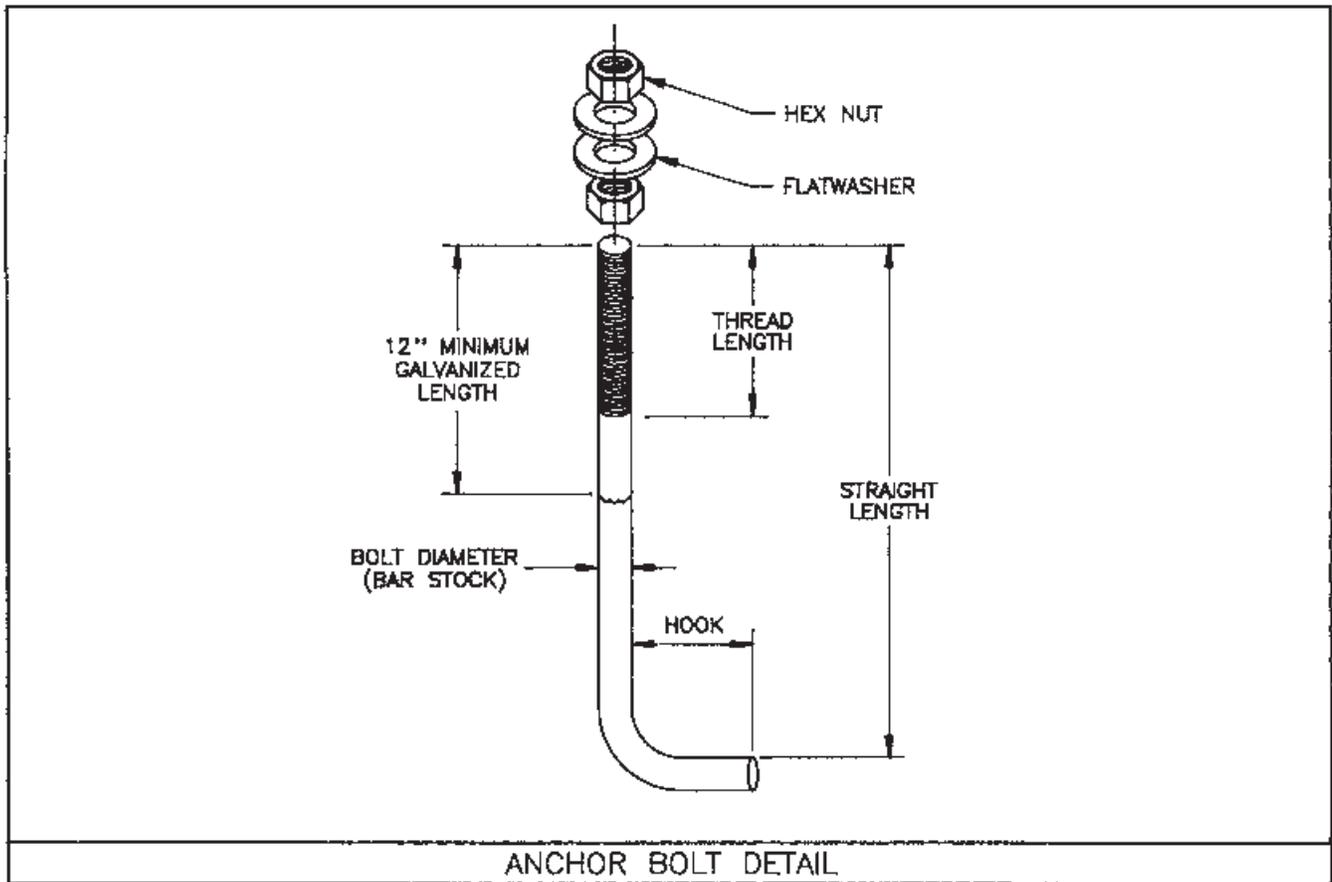
Steel Transformer Base



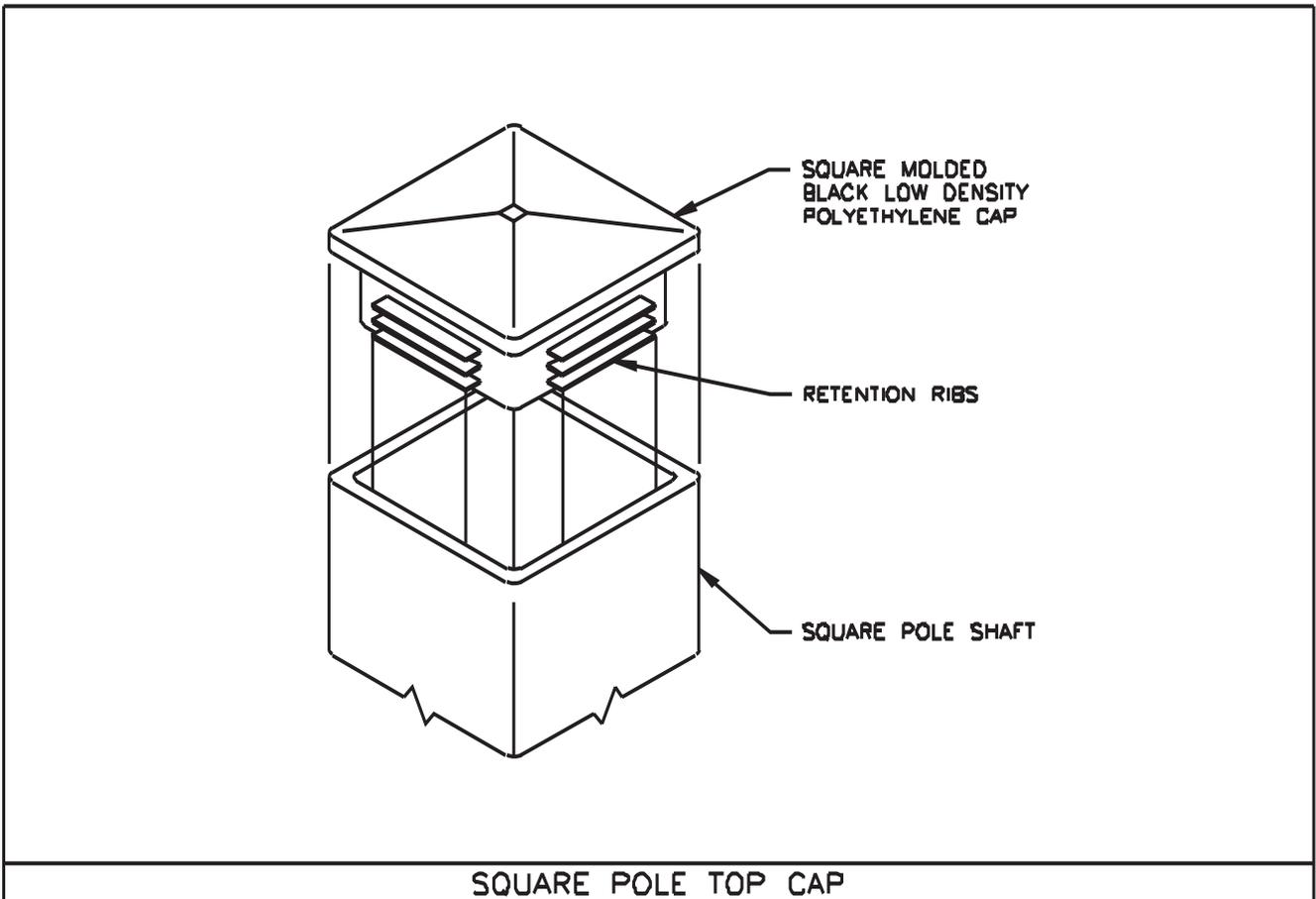
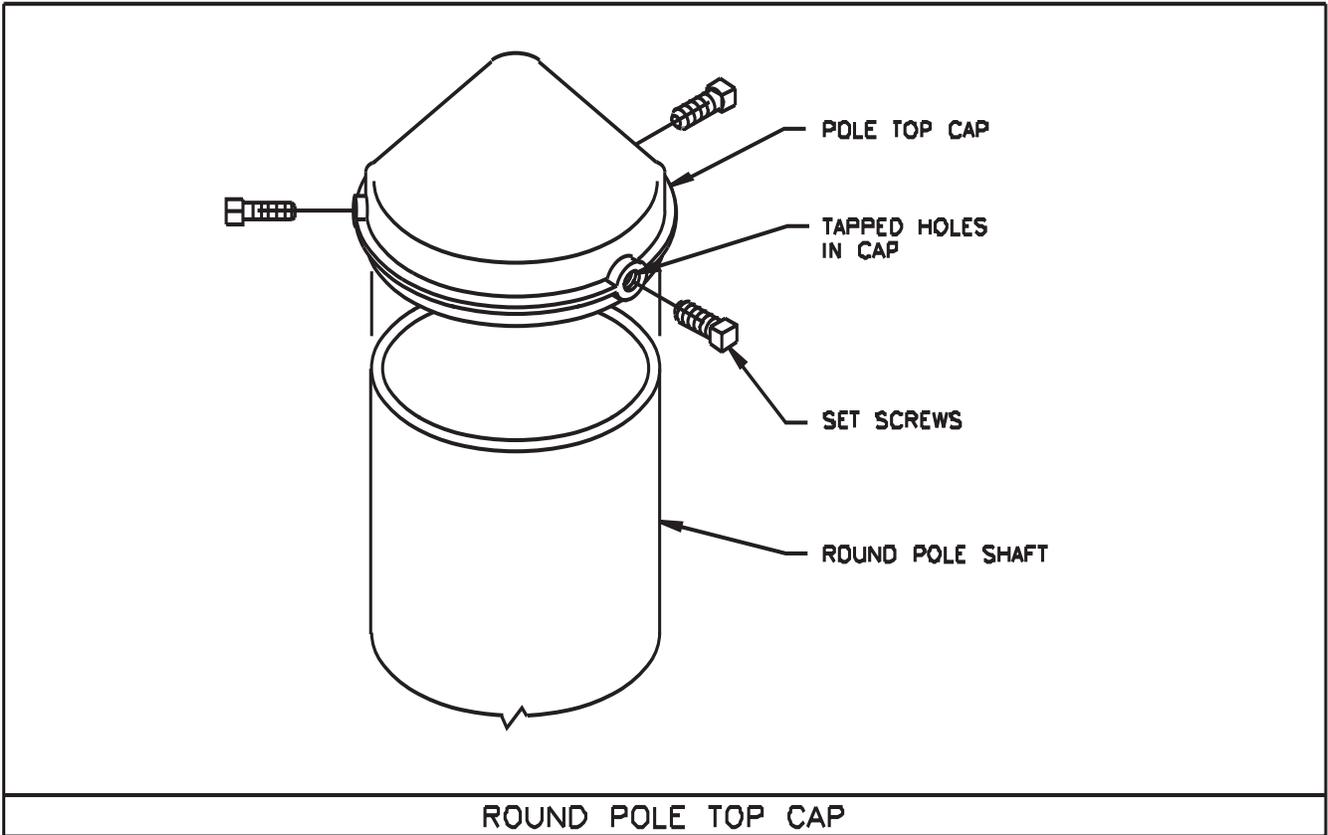
Model Number	Top Plate			Bottom Plate			Clear door Opening Top x Bott. x Lgth (in)	Total Height (in)
	Bolt Circle (in)	Max. Bolt Dia. (in)	Thick (in)	Bolt Circle (in)	Max. Bolt Dia. (in)	Thick. (in)		
M211	9.5 - 13.0	1.25	0.75	15.0	1.25	0.75	6.0 X 8.75 X 15.5	20
M212	10.0 - 13.5	1.25	0.75	22.0	1.25	0.75	8.0 X 10.5 X 19.5	24

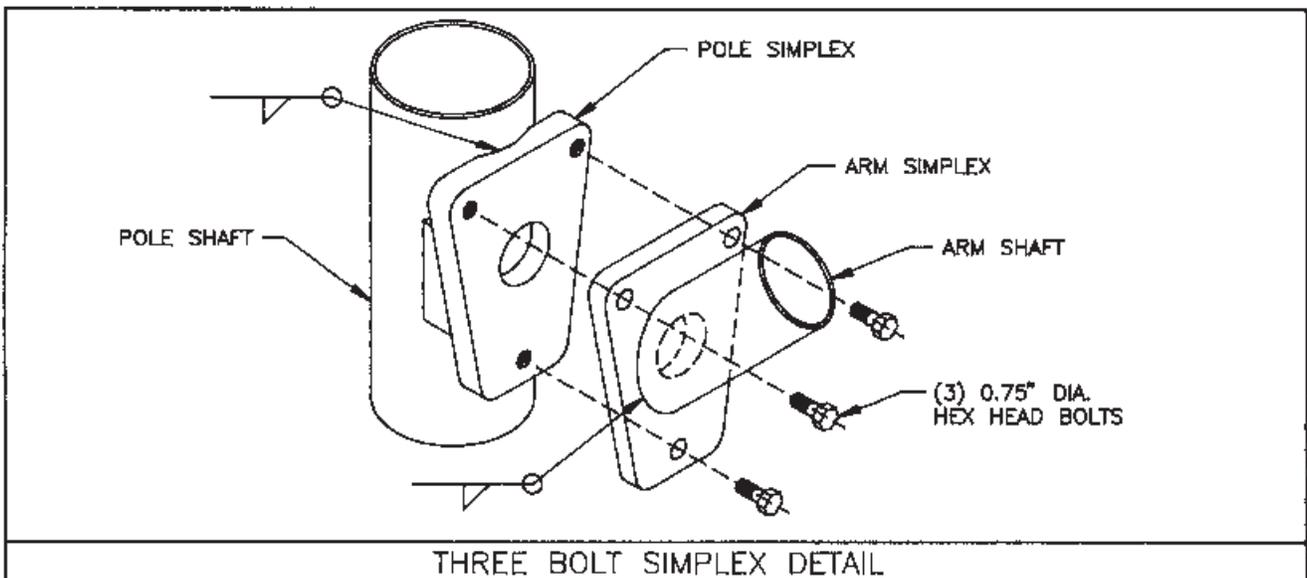
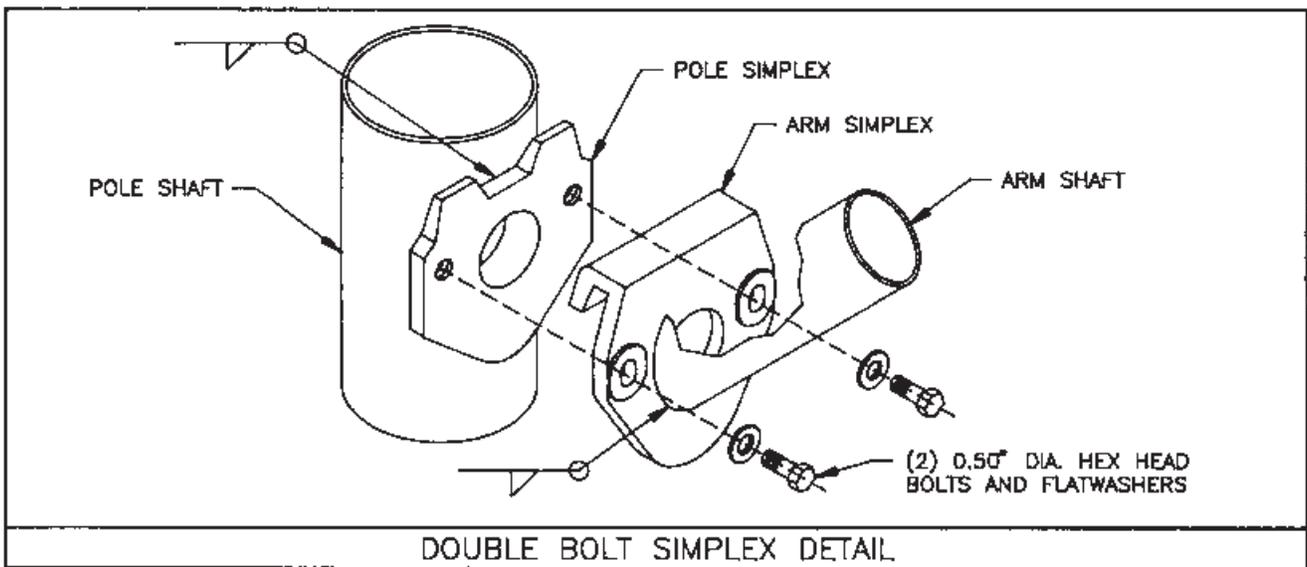
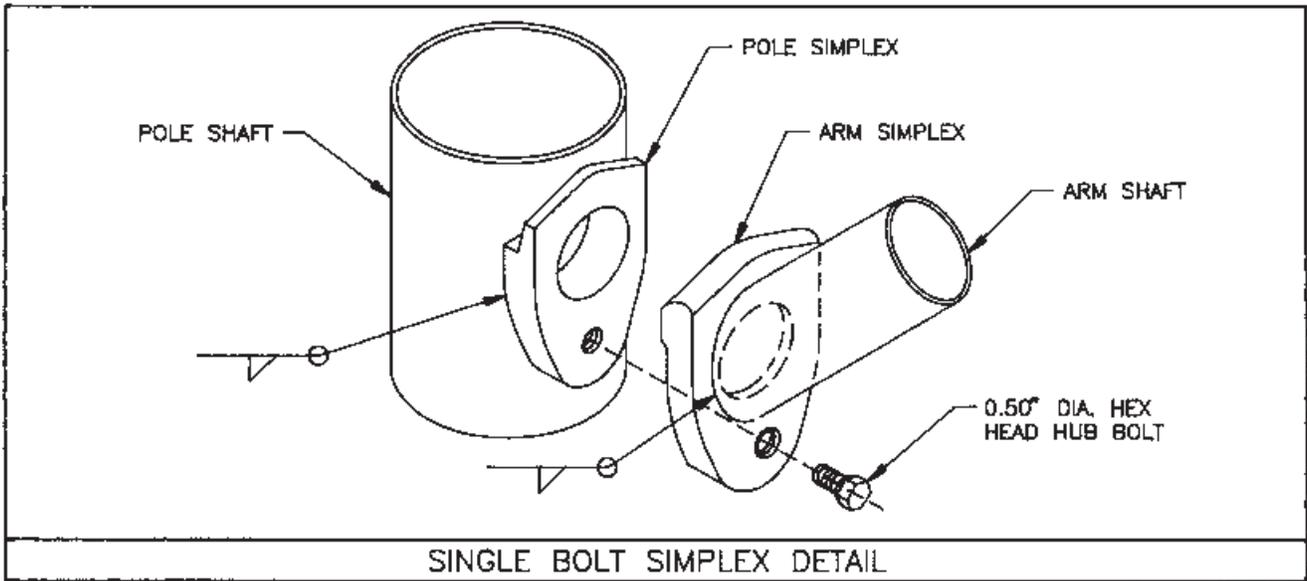
TRANSFORMER NOTES:

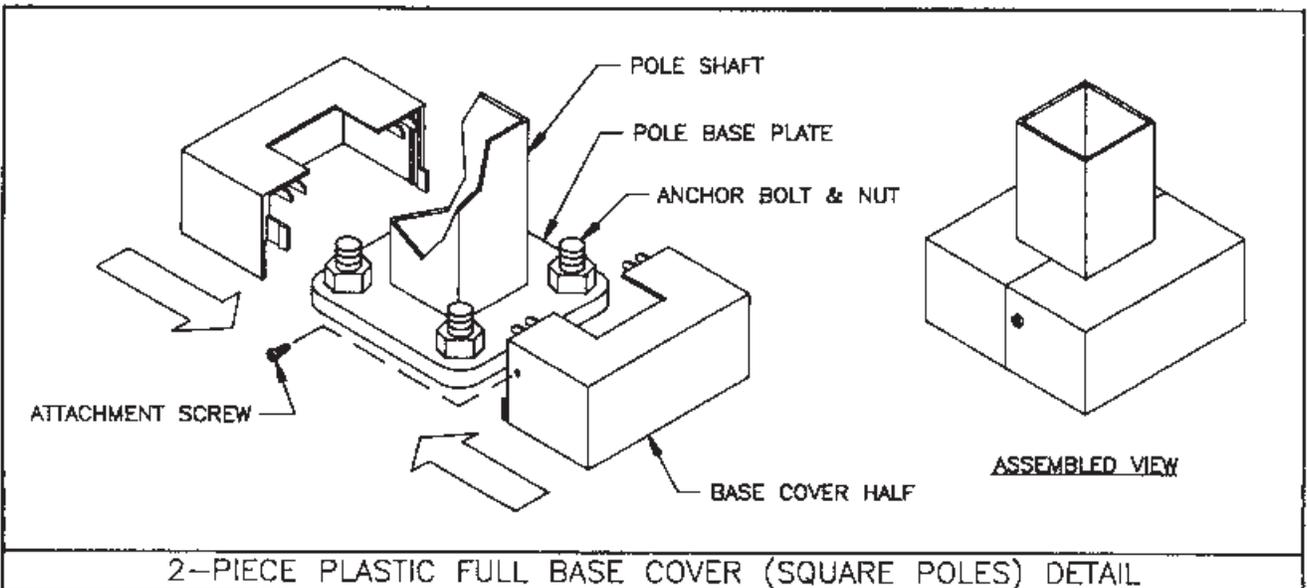
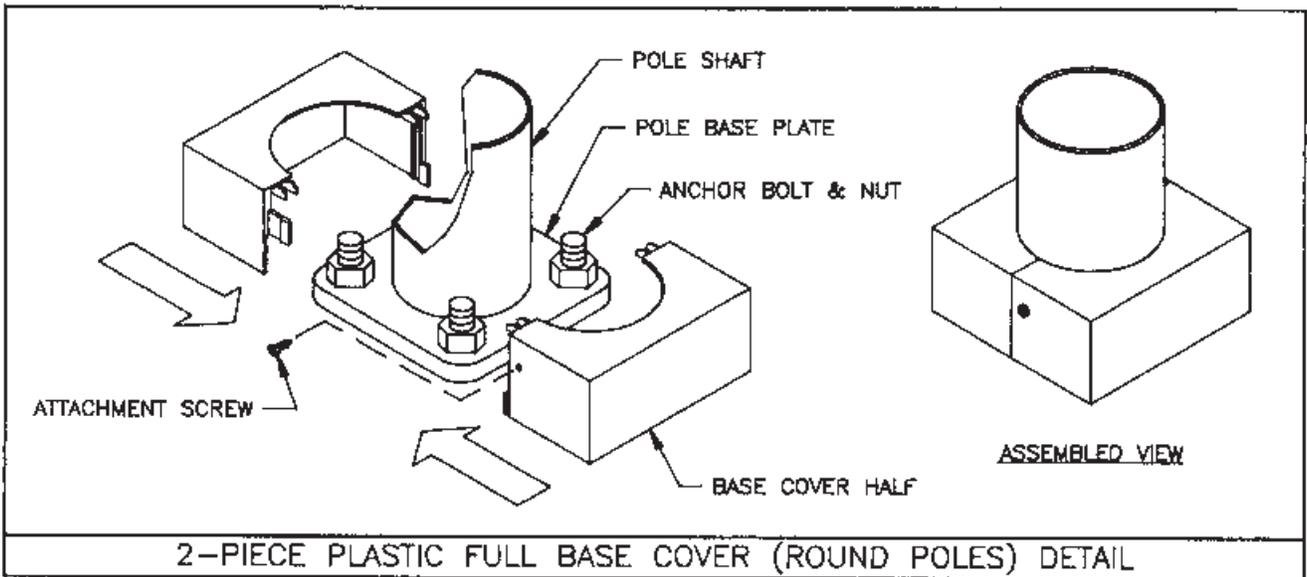
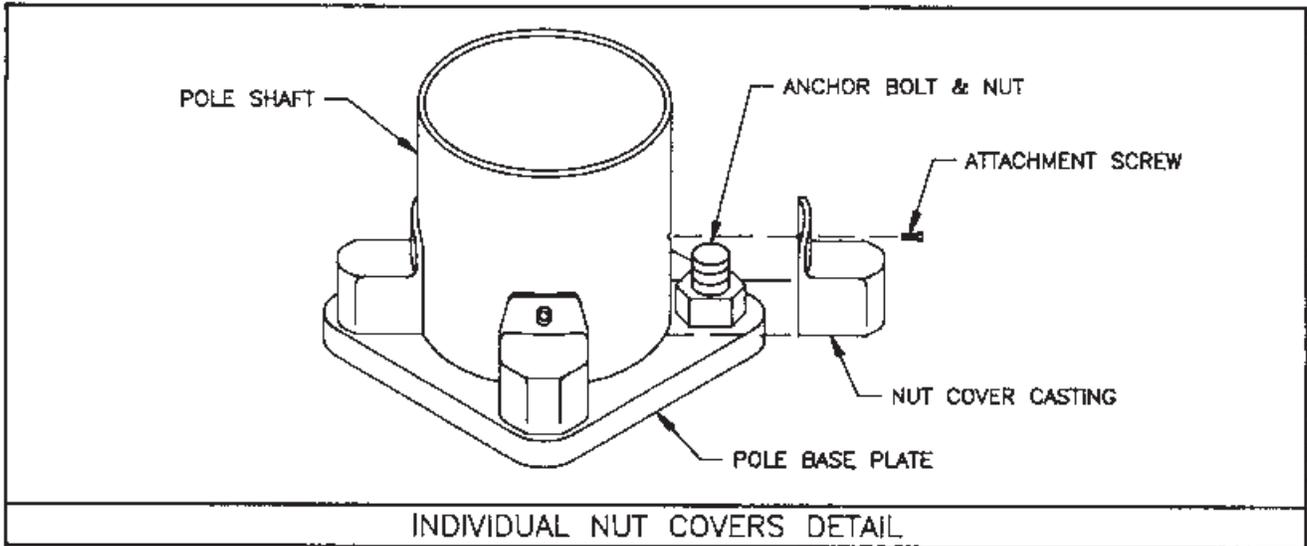
1. Steel transformer bases are permanent, non-breakaway, devices.
2. The casing or shroud separating top and bottom plates are manufactured from 7 Gauge (0.1793") thick material.

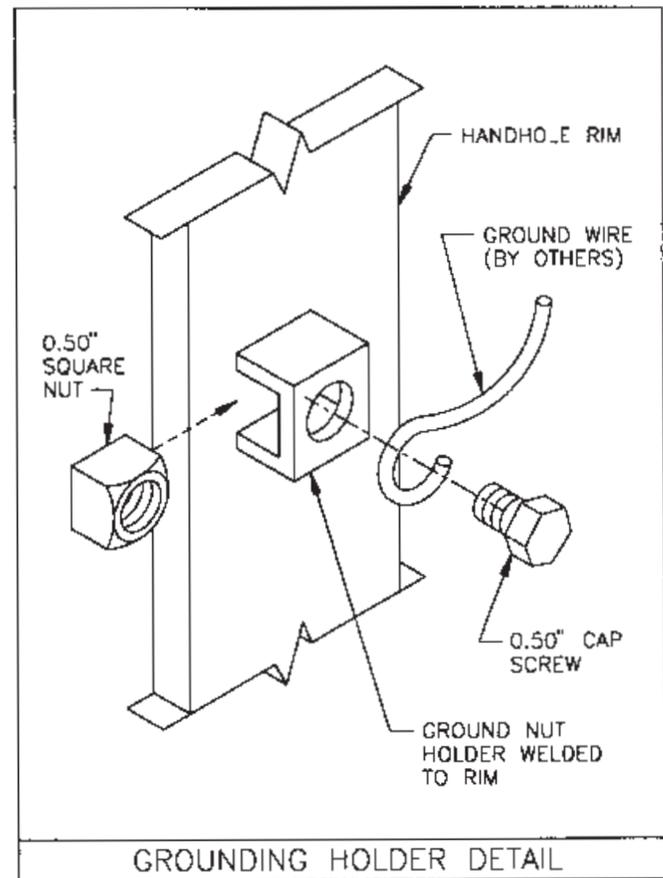
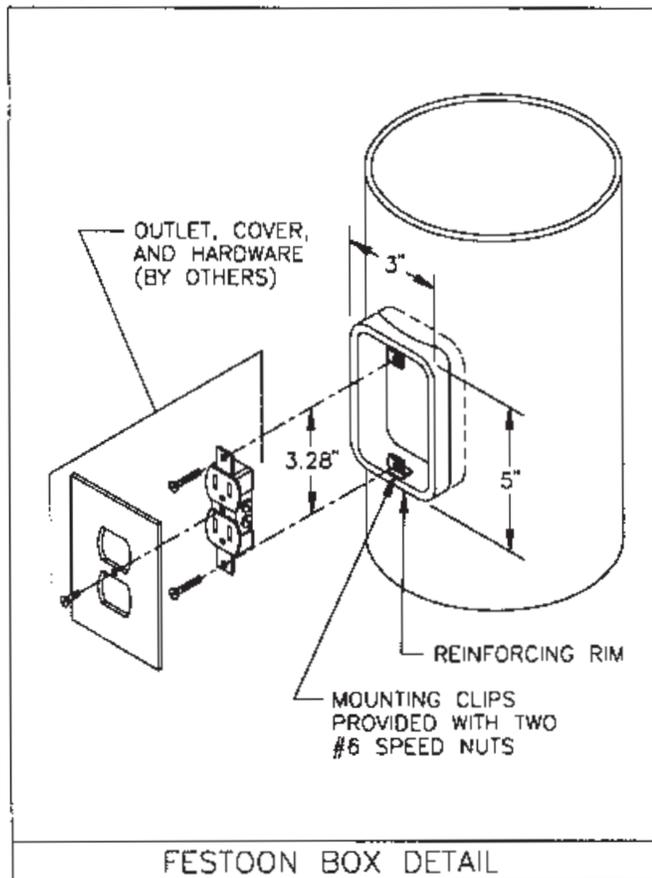
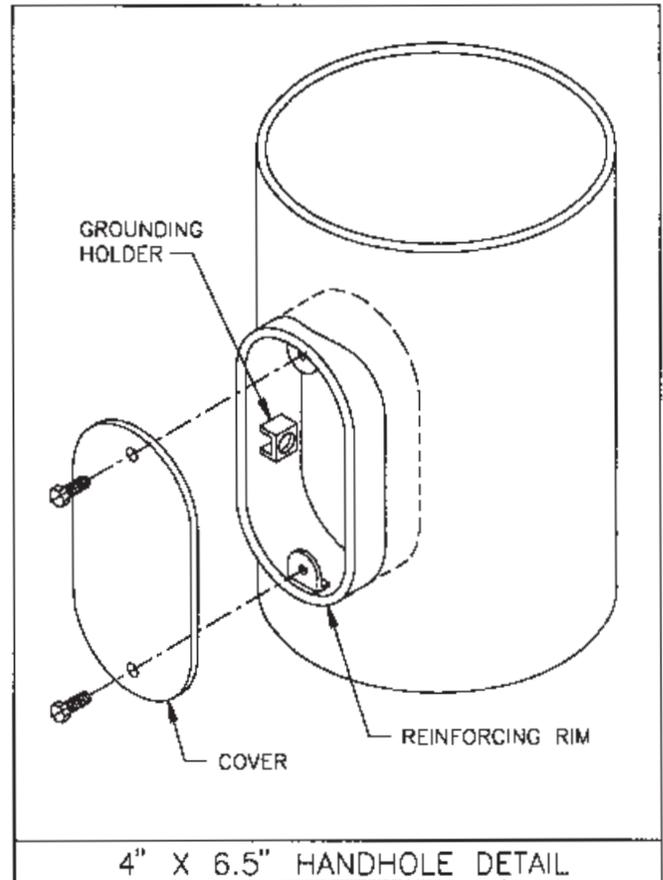
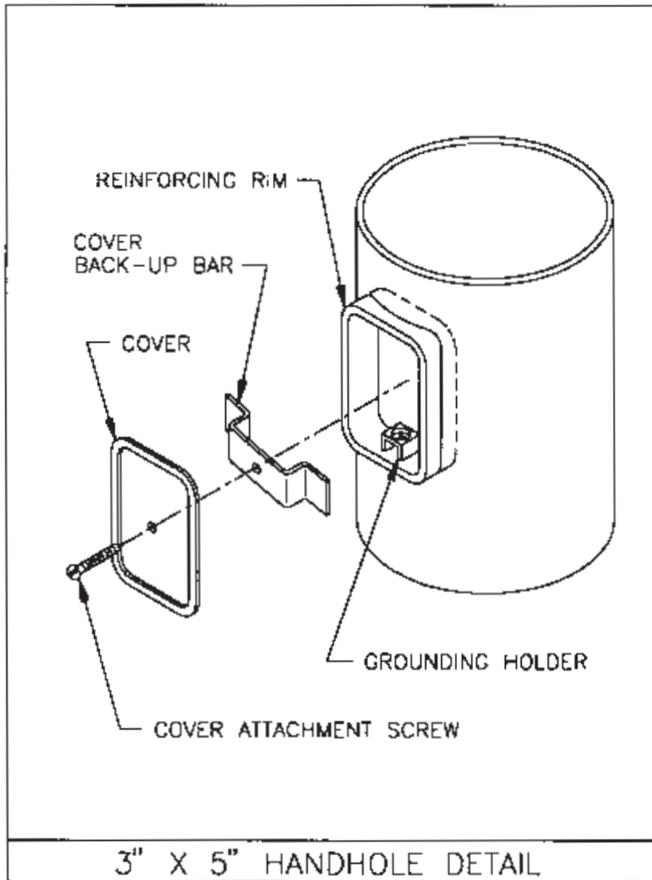


Warning: Foundations used in conjunction with break-away devices should have total anchor bolt projection from grade limited to 4 inches as defined by AASHTO, "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."









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WARRANTY

VALMONT INDUSTRIES, INC., warrants its products to be free from defects in materials and workmanship. Valmont Industries, Inc., will repair or replace without charge, F.O.B. Factory, any defective part returned to Valmont Industries, Inc., **within one year** from the date of delivery of the goods.

GENERAL PRODUCT WARRANTY

This warranty specifically excludes fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

The above warranties are given in lieu of all other warranties express or implied, including without limitation, the warranty of merchantability and the warranty of suitability for a particular purpose. It is expressly stated that Valmont assumes no liability for consequential or liquidated damages arising out of a breach of the sale, including any warranties arising therefrom, and buyer's remedy shall be limited to repair or replacement of defective parts as described above.

Any action for the breach under a sale including any warranties arising therefrom must be commenced within one year after the cause of action accrues.

TAXES

Valmont Industries, Inc., reserves the right to add any sales tax, duty, excise or any other tax which may be imposed on their product to the sales price of that product.

RETURNED GOODS

Prior written consent from Valmont Industries, Inc., must be secured before credit on returned goods will be given. Restocking charges, freight charges, product condition, product type and potential reselling abilities are considerations which will be included when evaluating returned goods requests.

CANCELLATION

The written consent of Valmont Industries, Inc., must be obtained prior to a cancellation of any order.

TERMS OF PAYMENT

Terms of payment are net, 30 days from date of invoice unless otherwise specified.

CLAIM FOR SHORTAGES

All claims for shortages must be made in writing within 30 days of receipt of shipment at destination.

QUOTATIONS

Prices quoted are subject to receipt and acceptance of order within 30 days of the quotation. The corporate office of Valmont Industries, Inc., Valley, Nebraska, is the final authority issuing all quotations and bids and the acceptance of all contracts and orders.

ROUTING

Routing and method of shipment will be determined by Valmont Industries, Inc., to the common carrier delivery point nearest destination. The customer will assume charges for special services such as cartage, air freight, express, parcel post, and multiple deliveries on one order.

SPECIAL DESIGN LOADING

For design or stress loading applications, other than those covered in each design section such as overhead wiring, guying of structures, structure mounted applications, or other field installed attachments, consult Valmont for design recommendations.

EXISTING FOUNDATION OR ANCHORAGE

If the poles are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation and anchorage. The customer also assumes all liabilities associated with ensuring the pole being ordered will be a compatible fit to the existing foundation or anchorage.

Valmont Industries, Inc., reserves the right to change any portion of this publication and its terms without notice in order to promote product improvement and allow for material availability.

Distribute this information to installation personnel, future maintenance personnel, and owners.

This general information deals primarily with the long term durability of structures of the type supplied by Valmont. It is not intended to be a comprehensive description of how to install these structures. Competent installation contractors must be consulted upon for practices, and equipment that meet the demands of the conditions at each job location.

Valmont cannot be responsible for any damage that occurs during or after installation, or for any structure that has been modified or that is utilized in some way other than that described in our application recommendations.

For information about the structural capability of these products or about installation practices, please consult with the factory or nearest Valmont representative.

Grounding and Protection Against Electric Shock

The purchaser and installer must provide proper electrical grounding and warnings about any electrical hazards in accordance with applicable codes.

Corrosion Protection

Structures that are to be stored prior to use should be protected from moisture retention and kept well ventilated. Immediate removal of all packing and shipping materials is recommended to prevent accelerated finish deterioration.

Foundation details should assure that water or excessive moisture cannot accumulate at the base of the pole. This includes providing drainage for any water caused by condensation inside the pole.

All finishes are subject to gradual deterioration. The rate of deterioration is a function of many variables such as:

- Corrosive elements in the atmosphere.
- Salt spray from road surfaces or a marine environment.
- Moisture from rainfall or condensation.

An on-going maintenance program must include periodic inspection for normal deterioration of the protective coating and for any indication of corrosion, which may be localized. Renewal of the protective end of the coating, both inside and outside, must be done at the end of the coating life to preserve the structural integrity of each assembly. Valmont's brochure "Protective Coatings for Steel" has additional information on corrosion protection.

Field Painting

The following information applies only to application of finish coats over Valmont's standard prime coats (Valmont Specifications F73). The painter must check whether the prime coat is Valmont's standard or a special finish specified by the purchaser.

The primed surface should be free of any contaminant detrimental to adhesion, such as grease, oil, and dirt. This can be accomplished by chemically cleaning contaminated areas with stoddard solvent, petroleum naphtha, mineral spirits, turpentine, xylol or toluene. Light sanding of the primed surface further enhances adhesion of the top coat. Spot prime such areas as scratches and mars that have penetrated near or to the substrate.

Note: Field applied top coats containing high strength solvents should be tested for inter-coat and system adhesion. Primed surfaces not top coated within 30 days should be lightly sanded or chemically cleaned.

Weathering Steel

Weathering steel is not a completely maintenance-free material. An on-going maintenance program must include periodic inspection for any abnormal corrosion.

Suppliers of weathering steel can supply data about the behavior of these materials in various environments. Their application recommendations should be consulted for best results.

It is important to avoid continuous exposure to moisture. Liquid water, damp debris, or soil on weathering steel surfaces will cause accelerated corrosion. Excessive vegetation around the base can be harmful. A build-up of corrosion debris can adversely affect the inside of the pole base.

Unless tubular members are hermetically sealed they should be kept open for ventilation, particularly at the base.

At least one steel supplier recommends painting closely fitting (faying) surfaces. The best time for painting is immediately prior to installation to minimize damage to the protective coating.

Effects of Vibration

Although rare, vibrations severe enough to cause damage can occasionally occur in structures of all types. Because they are influenced by many interacting variables, vibrations are generally unpredictable. There is no single cure that will assure the prevention of all modes of vibration.

Vibration is believed to be more likely to occur when structures (or components such as arms) are installed without attaching the equipment which the structures are designed to support. Therefore the intended equipment, or devices equivalent in damping characteristics, should be installed at the time of erection.

Steel poles have been less affected by vibrations than poles of other materials. However, the user's maintenance program should include observation for excessive vibration and examination for any structural damage or bolt loosening.

Anchor Bolt Foundations

If anchorage hardware is furnished by others, the correct size and strength must be used.

When leveling nuts are used, the lower nuts should be close to the concrete surface (about 1" maximum). Large spaces between the pole base plate and the concrete can cause excessive stresses in the anchor bolts, particularly when there are large torsional forces in the pole.

Transformer Bases

In attaching a pole to a transformer base, when the pole base plate has slotted holes, place the connecting bolts on the largest possible bolt circle (i.e. the outer ends of the slots).

ASTM A325 Bolts

Threads may need to be lubricated in the field in order to achieve bolt tension in accordance with AISC recommendations. Hardware suppliers use beeswax and various commercial waxes as lubricants. They indicate that products like "WD-40" are commonly used in the field.

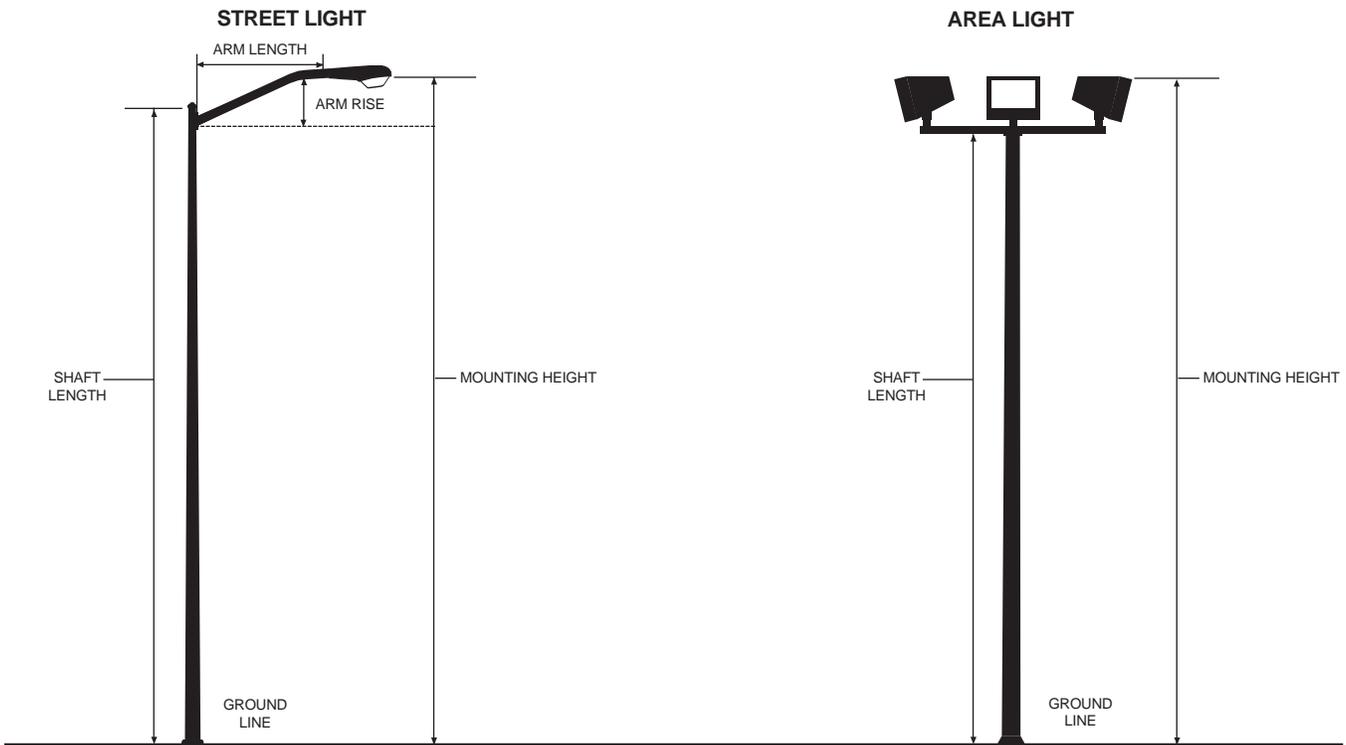
Hinged Poles

Wiring must pass through the wiring protection guide at the hinge to assure that the insulation won't be damaged during raising and lowering. The raising and lowering winch must be operated smoothly and the winch cable kept taut to avoid impact loadings which could cause collapse of the shaft extension shroud.

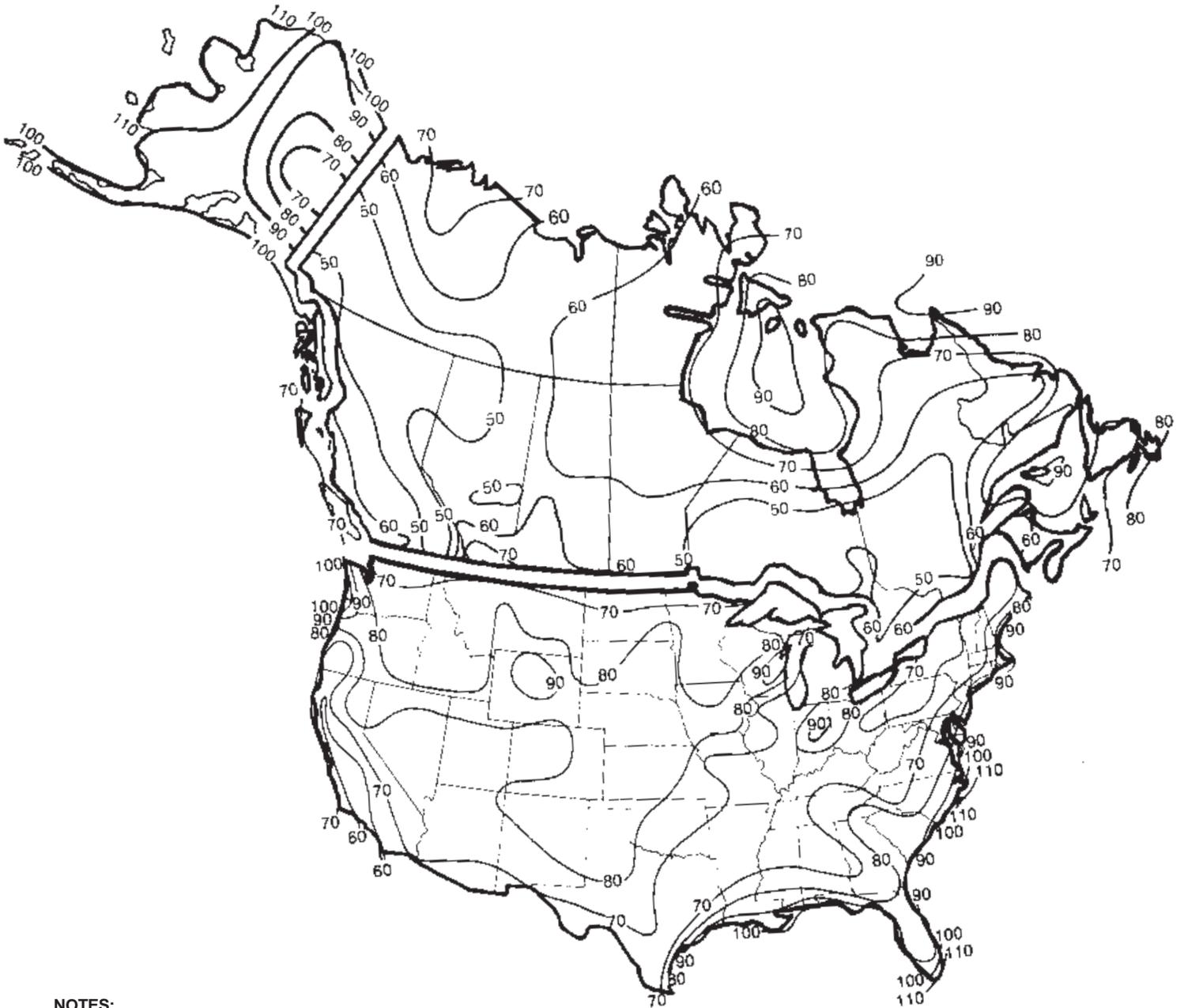
Information Required for Pole Design:

- Wind speed – MPH gust factor 1.3 _____
- Design Criteria: Valmont, AASHTO, Other (specify) _____
- Mounting Height of Luminaires _____
- Product Finish:
 - Galvanized
 - Prime Paint
 - Finish Paint
 - Color _____
 - Std. Valmont Color Light Fixture Manu. Color
 - RAL Color Federal Color
 - Special (Provide Chip)
 - Weathering Steel
- Fixture EPA _____ and Weight _____

- Street lighting:
 - Arm Rise _____
 - Arm Length _____
- Area Lighting Fixture Arrangement _____
 - Brackets Required _____
- Accessories:
 - Steps
 - Location _____
 - (Starting above base plate and ending location)
 - Festoon Outlet
 - Location _____
 - (Radial orientation from handhole as viewed from pole top and height above ground)
 - Couplings
 - Size _____
 - Location _____



Basic Wind Velocity (miles per hour)



NOTES:

1. Values are based on annual extreme-mile 30 feet above ground. And 50 year mean recurrence interval for United States.
2. Canada based on peak mean hourly wind speeds for a 30 year return period, 30 feet above ground.
3. Caution is advised in using wind velocity contours in special wind areas such as mountainous areas and areas around the Great Lakes.
4. Hawaii has an 80 mph wind velocity.
5. This map is intended as a general guide. Check your local area for unique wind conditions.

Valley, Nebraska, USA

Farmington, Minnesota, USA

Salem, Oregon, USA

Charmeil, France

Rive-De-Gier, France

Monterrey, Mexico

Commerce City, Colorado, USA

Elkhart, Indiana, USA

Selbyville, Delaware, USA

Sidlce, Poland

Maarheeze, the Netherlands

Berrechid, Morocco

Brenham, Texas, USA

Plymouth, Indiana, USA

St. Julie, Quebec, Canada

Gelsenkirchen, Germany

Shanghai, China

Chesterfield-Derbyshire, UK

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Web: www.valmont.com

**EXHIBIT I
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS
COMPLIANCE WITH ELECTRICAL SAFETY PROVISIONS
(Bidder to sign and return)**

I hereby certify that I am a principal and duly authorized representative of _____, (“Contractor”), whose address is _____, _____, _____, and I further certify that:

- (1) The provisions of Section 46-3-30 of the Official Code of Georgia Annotated, relating to the “High Voltage Safety Act” will be complied with in full; and
- (2) The provisions of OSHA 29CFR1910.333(c) relating to work near high voltage power lines; and
- (3) The provisions of Part 4 of the National Electrical Safety Code.
- (3) The Contractor shall be required to ensure that each subcontractor hired is in compliance with the provisions listed above.

CONTRACTOR:

Date: _____

Signature: _____

Title: _____

**EXHIBIT J
TO CONTRACT AGREEMENT
AFFIDAVIT VERIFYING STATUS FOR CITY PUBLIC BENEFIT APPLICATION**

By executing this affidavit under oath, as an applicant for a City of Sandy Springs, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, execution of contract or other public benefit as referenced in O.C.G.A. Section 50-36-1, I am stating the following with respect to my application for a City of Sandy Springs license/permit and/or contract for

[Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: _____ Date: _____

Printed Name: _____

*Alien Registration number for non-citizens

****PLEASE INCLUDE A COPY OF YOUR PERMANENT RESIDENT CARD, EMPLOYMENT AUTHORIZATION, GREEN CARD, OR PASSPORT WITH A COPY OF YOUR DRIVER'S LICENSE IF YOU ARE A LEGAL PERMANENT RESIDENT (#2).**

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF _____.

Notary Public: _____

My Commission Expires: _____

*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below:

**EXHIBIT K
TO CONTRACT AGREEMENT
EVERIFY AFFIDAVIT**

CONTRACTOR AFFIDAVIT UNDER O.C.G.A. § 13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the City of Sandy Springs has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____ in _____ (city), _____ (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE _____ DAY OF _____

NOTARY PUBLIC

My Commission Expires: _____

**EXHIBIT L
TO CONTRACT AGREEMENT**

CORPORATE CERTIFICATE

I, _____, certify that I am the Secretary of the Corporation named as Contractor in the foregoing bid; that _____ who signed said bid in behalf of the Contractor, was then (title) _____ of said Corporation; that said bid was duly signed for and in behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of ___ Georgia _____.

This _____ day of _____, 2019.

(Seal)

(Signature)

**EXHIBIT M
TO CONTRACT AGREEMENT**

ADDENDUMS

**EXHIBIT N
TO CONTRACT AGREEMENT**

SURETY BONDS

BID BOND
(BID BOND TO BE RETURNED WITH BID)

KNOW ALL MEN BY THESE PRESENTS, THAT _____

(Name of Contractor) _____

(Address of Contractor) at

(Corporation, Partnership and or Individual) hereinafter called Principal, and _____

(Name of Surety)

(Address of Surety)

A corporation of the State of _____, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

City of Sandy Springs Georgia
7840 Roswell Rd., Bldg.-500, Sandy Springs, Georgia 30350

herein after referred to as Obligee, in the penal sum of _____ Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Sandy Springs, Georgia, a proposal for furnishing materials, labor and equipment for:

Spalding @ Dalrymple/Trowbridge Intersection Improvements TS103

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Sandy Springs, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Sandy Springs, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Sandy Springs, Georgia, and otherwise, to be and remain in full force and virtue in law; and

the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Sandy Springs, Georgia, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be constructed as a bond in compliance with the requirements thereof. Signed, sealed, and dated this _____ day of _____ A.D., 20 ____

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

BY: _____

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST

BY: _____
(Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)

(Address)

(Witness as to Surety)

(Address)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

A Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs. Georgia
7840 Roswell Rd., Bldg.-500, Sandy Springs, Ga. 30350

hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of:

_____ Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated _____ for:

Spalding @ Dalrymple/Trowbridge Intersection Improvements TS103

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the obligee, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed hereunder.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. § 36-91-1 et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20____

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

BY: _____

(Witness to Principal)

(Address)

(Surety)

ATTEST BY:

Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)
(Address)

(Witness as to Surety)

(Address)

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT _____
(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

a Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs Georgia
7840 Roswell Rd., Bldg.-500, Sandy Springs, Georgia 30350

hereinafter referred to as Obligee; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of _____ Dollars (\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract hereto attached, with the Obligee, dated _____ for:

Spalding @ Dalrymple/Trowbridge Intersection Improvements TS103

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials, services, skill, tools, machinery, and equipment furnished

or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED, HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal:

Unless such person shall have given notice to the Principal within One Hundred and Twenty (120) days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five (5) days of the mailing of the notice to the Principal.

PROVIDED, FURTHER, that any suit under this bond must be instituted before the expiration of one (1) year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20____

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

BY: _____

(Witness to Principal)

(Address)

(Address)

ATTEST

(Surety)

BY: _____
(Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)

(Address)

(Witness as to Surety)

(Address)

**EXHIBIT O
TO CONTRACT AGREEMENT**

**SUBCONTRACTORS
LIST OF SUBCONTRACTORS**

I do _____, do not _____, propose to subcontract some of the work on this project. I propose to subcontract work to the following subcontractors:

Company Name: _____