



Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Request for Quotation  
 13 — Equipment

Proc Folder: 739235

Doc Description: HIGH POWER VHF TV TRANSMIT ANTENNA

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-06-26	2020-07-14 13:30:00	CRFQ 0439 EBA2000000029	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

RECEIVED  
 2020 JUL 13 AM 10:36  
 WV PURCHASING  
 DIVISION

**VENDOR**

Vendor Name, Address and Telephone Number:

**FOR INFORMATION CONTACT THE BUYER**

Dusty J Smith  
 (304) 558-2063  
 dusty.j.smith@wv.gov

Signature X

FEIN #

DATE

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION:**

ONE TIME  
 THE STATE OF WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, EDUCATIONAL BROADCASTING AUTHORITY, IS SOLICITING BIDS FOR THE ONE-TIME PURCHASE OF HIGH POWER VHF TV TRANSMIT ANTENNA PER THE ATTACHED DOCUMENTS.

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO DUSTY.J.SMITH@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS.

\*\*\*\*PLEASE NOTE MAKE SURE YOU DOWNLOAD BOTH OF THE SOLICITATIONS \*\*\*\*

INVOICE TO		SHIP TO	
CHIEF FINANCIAL OFFICER EDUCATIONAL BROADCASTING 124 INDUSTRIAL PARK RD		SITE MANAGER EDUCATIONAL BROADCASTING WSWP-TV 124 INDUSTRIAL PARK RD	
BEAVER	WV25813	BEAVER	WV 25813
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	HIGH POWER VHF TV TRANSMIT ANTENNA	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43221703			

Extended Description :  
 HIGH POWER VHF TV TRANSMIT ANTENNA

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	TECHNICAL QUESTIONS DUE AT 10AM	2020-07-06

## INSTRUCTIONS TO VENDORS SUBMITTING BIDS

**1. REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

**2. MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

**3. PREBID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting  
Revised 01/09/2020

are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

**4. VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: July 6th, 2020 due at 10am

Submit Questions to: Dusty Jo Smith  
2019 Washington Street, East  
Charleston, WV 25305  
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)  
Email: Dusty.j.Smith@wv.gov

**5. VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

**6. BID SUBMISSION:** All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID: HIGH POWER VHF TV TRANSMIT ANTENNA  
BUYER: DUSTY JO SMITH  
SOLICITATION NO.: CRFQ EBA2000000029  
BID OPENING DATE: JULY 14TH, 2020  
BID OPENING TIME: 1:30PM  
FAX NUMBER: 304-558-3970

Revised 01/09/2020

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

**For Request For Proposal ("RFP") Responses Only:** In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

**BID TYPE:** (This only applies to CRFP)

Technical

Cost

**7. BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

**Bid Opening Date and Time:** JULY 14TH, 2020 1:30PM

**Bid Opening Location:** Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**8. ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**9. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

**10. ALTERNATE MODEL OR BRAND:** Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the

Revised 01/09/2020

equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

**11. EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

**12. COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

**13. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

**14. UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

**15. PREFERENCE:** Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at:

<http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

**15A. RECIPROCAL PREFERENCE:** The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: <http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

**16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or

minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

**17. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

**18. ELECTRONIC FILE ACCESS RESTRICTIONS:** Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

**19. NON-RESPONSIBLE:** The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

**20. ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

**21. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**22. INTERESTED PARTY DISCLOSURE:** West Virginia Code § 6D-1-2 requires that the vendor submit to the Purchasing Division a disclosure of interested parties to the contract for all contracts with an actual or estimated value of at least \$1 Million. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission prior to contract award. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

**23. WITH THE BID REQUIREMENTS:** In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.



## **GENERAL TERMS AND CONDITIONS:**

**1. CONTRACTUAL AGREEMENT:** Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

**2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

**2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

**2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.

**2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

**2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.

**2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.

**2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

**2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

**2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

**2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

**3. CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

**Term Contract**

**Initial Contract Term:** This Contract becomes effective on \_\_\_\_\_ and extends for a period of \_\_\_\_\_ year(s).

**Renewal Term:** This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to \_\_\_\_\_ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Alternate Renewal Term** – This contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

**Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within \_\_\_\_\_ days.

**Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within \_\_\_\_\_ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for \_\_\_\_\_ year(s) thereafter.

**One Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

**Other:** See attached.

**4. NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

**5. QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

**Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

**Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

**Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

**One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

**6. EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

**7. REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

**BID BOND (Construction Only):** Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

**PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.

**LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

**MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

**LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

**8. INSURANCE:** The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

**Commercial General Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**Automobile Liability Insurance** in at least an amount of: \_\_\_\_\_ per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \_\_\_\_\_ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

**Commercial Crime and Third Party Fidelity Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Cyber Liability Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

**9. WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. [Reserved]**

**11. LIQUIDATED DAMAGES:** This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

N/A \_\_\_\_\_ for N/A \_\_\_\_\_

Liquidated Damages Contained in the Specifications

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

**14. PAYMENT IN ARREARS:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

**15. PAYMENT METHODS:** Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

**16. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

**17. ADDITIONAL FEES:** Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

**18. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

**19. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

**20. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.

**21. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

**22. COMPLIANCE WITH LAWS:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**23. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

**24. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

**25. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

**26. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

**27. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

**28. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

**29. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

**30. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.



**31. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**32. LICENSING:** In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**33. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

**34. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

**35. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

**36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

**37. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

**38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts (“Other Government Entities”), provided that both the Other Government Entity and the Vendor agree. Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

**39. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

**40. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at [purchasing.requisitions@wv.gov](mailto:purchasing.requisitions@wv.gov).

**41. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider’s employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Revised 01/09/2020

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

**42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
  - c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
  - d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

**43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a

“substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

**44. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE:** W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.


**45. PROHIBITION AGAINST USED OR REFURBISHED:** Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

MIKE MORENO / SALES  
(Name, Title)  
MIKE MORENO / SALES  
(Printed Name and Title)  
10201 RODNEY ST. PINEVILLE, NC 28134  
(Address)  
800-438-0040 / 704-889-4540  
(Phone Number) / (Fax Number)  
MMORENO@SCMSINC.COM  
(email address)

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

SCMS INC.  
(Company)

 - MIKE MORENO - SALES  
(Authorized Signature) (Representative Name, Title)

MIKE MORENO - SALES  
(Printed Name and Title of Authorized Representative)

7/6/2020  
(Date)

800-438-0040 / 704-889-4540  
(Phone Number) (Fax Number)

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.:**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

*(Check the box next to each addendum received)*

- Addendum No. 1
- Addendum No. 2
- Addendum No. 3
- Addendum No. 4
- Addendum No. 5

- Addendum No. 6
- Addendum No. 7
- Addendum No. 8
- Addendum No. 9
- Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

SCMS INC.

Company

[Handwritten Signature]

Authorized Signature

2/4/2020

Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: SCMS INC.

Authorized Signature: [Signature] Date: 7/8/2020

State of North Carolina

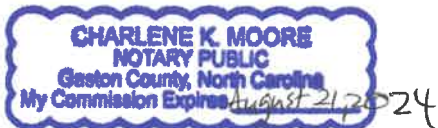
County of Gaston, to-wit:

Taken, subscribed, and sworn to before me this 8<sup>th</sup> day of July, 2020.

My Commission expires August 21, 2024.

AFFIX SEAL HERE

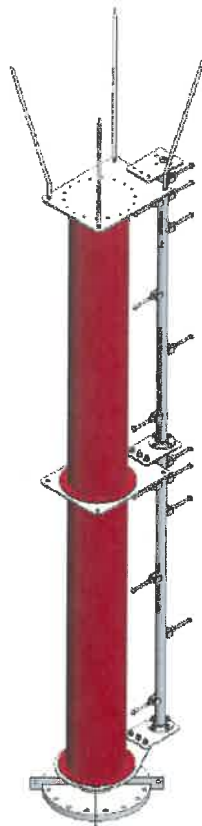
NOTARY PUBLIC Charlene K Moore





Antenna Proposal

WSWP-TV  
Grandview, WV  
Channel 8  
ATC-BCE040-V0-8  
Top Mount  
Elliptically Polarized Omni



07/06/2020

# Summary

## Antenna Specifications

Antenna Type	Coaxial Slot
Antenna Model	ATC-BCE04O-V0-8

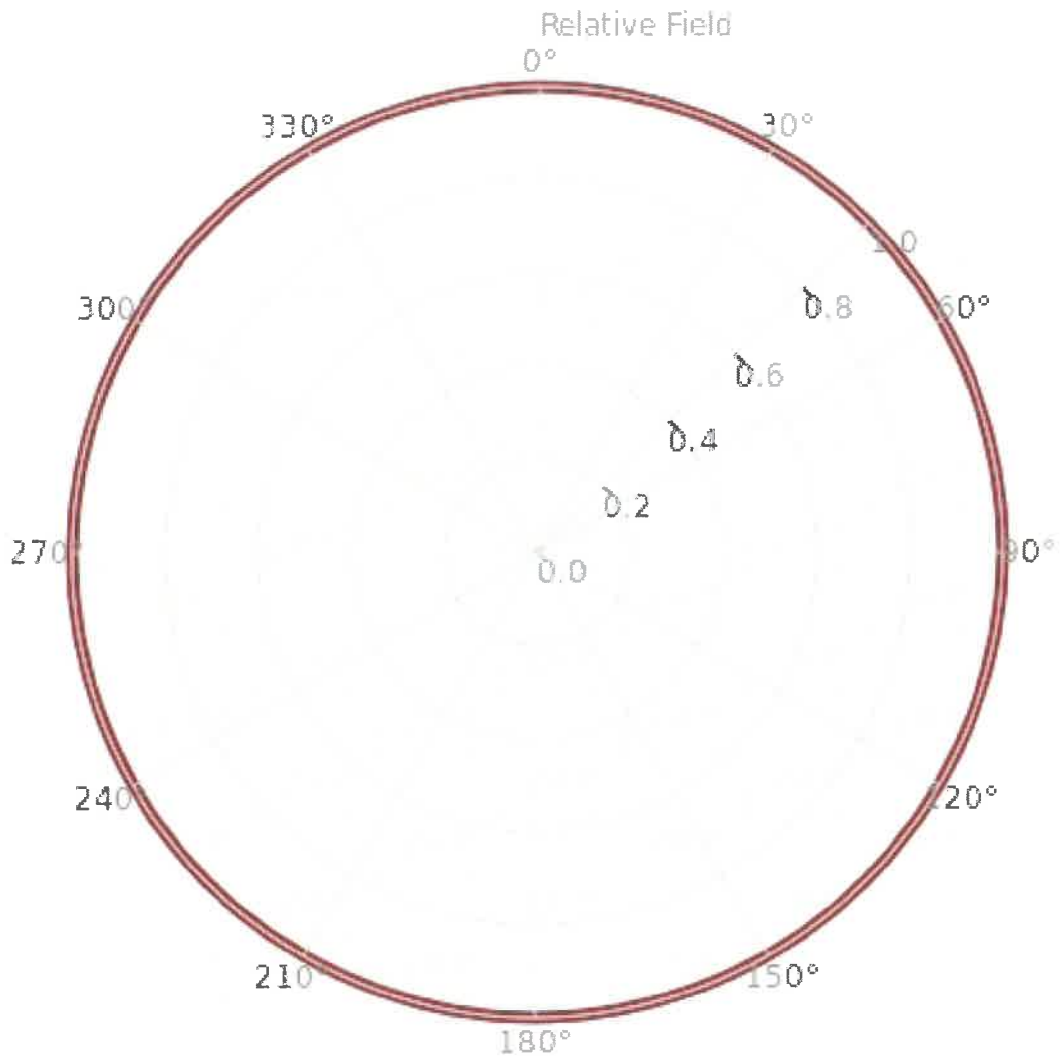
## Electrical Specifications

Channel(s)	8
Frequency Range (MHz)	180 - 186
Polarization	Elliptical
Horizontal Azimuth Pattern	Omni
Directivity	1.00
dB	0.00
Vertical Azimuth Pattern	V-Omni
Directivity	1.00
dB	0.00
Vertical Component	25 %
Azimuth Peak of Beam	0 °
Elevation Pattern	4L
Directivity	4.58
dB	6.61
Electrical Beam Tilt	0.75 °
Antenna Peak Power Gain	
Horizontal Gain Power	3.66
Horizontal Gain Ratio	5.64 dBd
Vertical Gain Power	0.92
Vertical Gain Ratio	-0.38 dBd
Line Type	3-1/8" 50 Ohm Rigid Line
Line Length	450 ft
Total Line Loss	0.56 dB
Effective Radiated Power (ERP)	30 kW
ERP Vertical Power	7.50 kW
Transmitter Power Output (TPO)	
TPO Power	9.32 kW
TPO Ratio	9.69 dBk
Input Type	EIA 3-1/8"

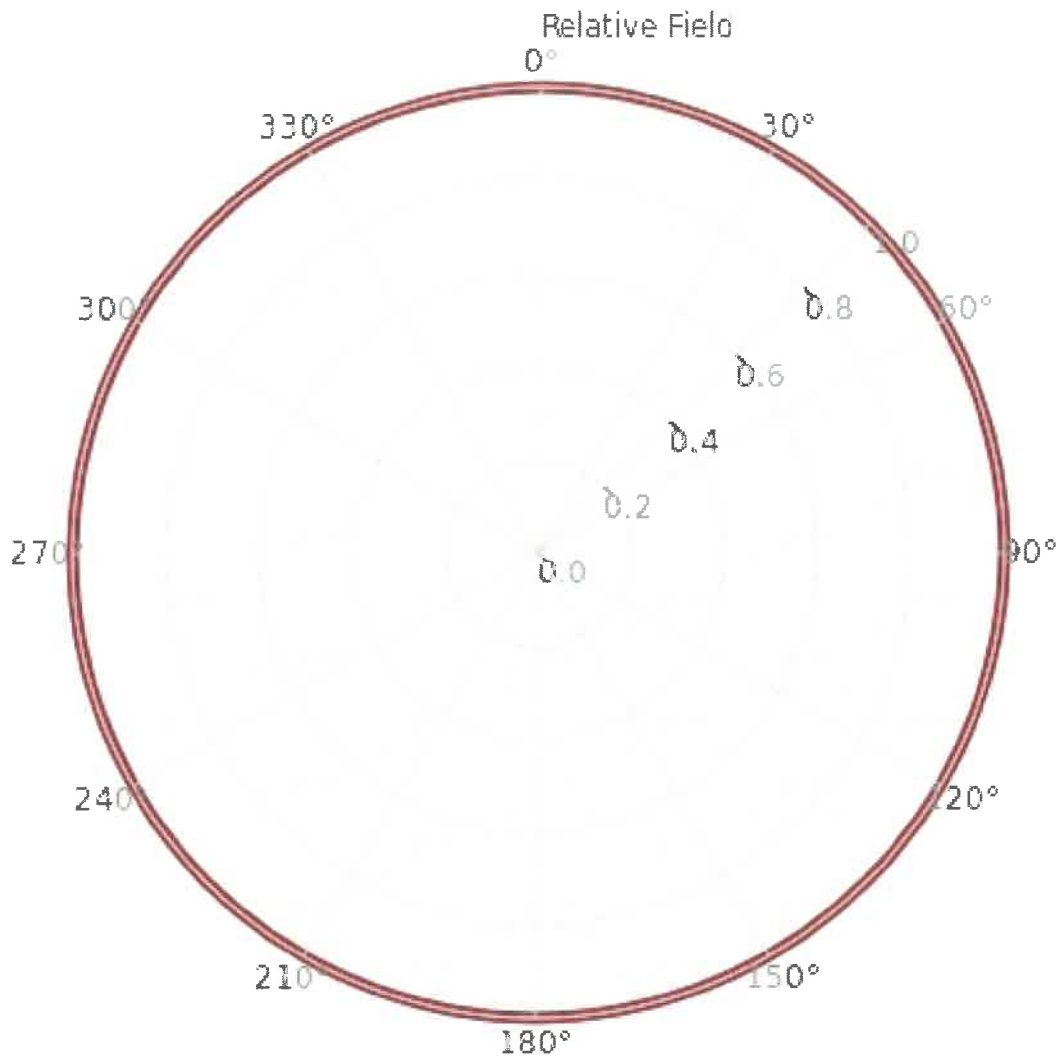
## Mechanical Specifications

Mount Type	Top Mount
Length of Antenna	22 ft
Center of Radiation	11 ft
Radome Diameter	18.25"
Color	Aviation Orange
Calculated Weight	3650 lbs
Windload (Shear)	See Attached Sheet

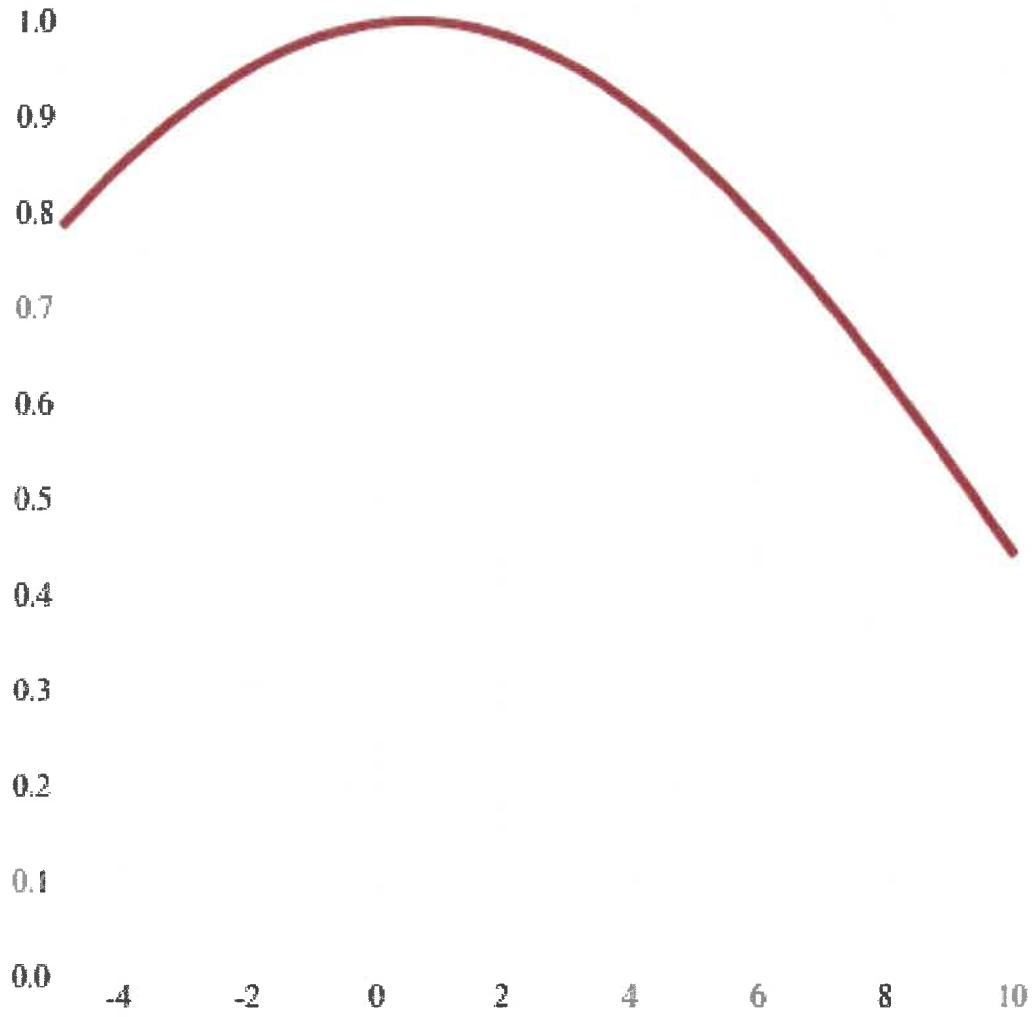
# Horizontal Azimuth Pattern



# Vertical Azimuth Pattern

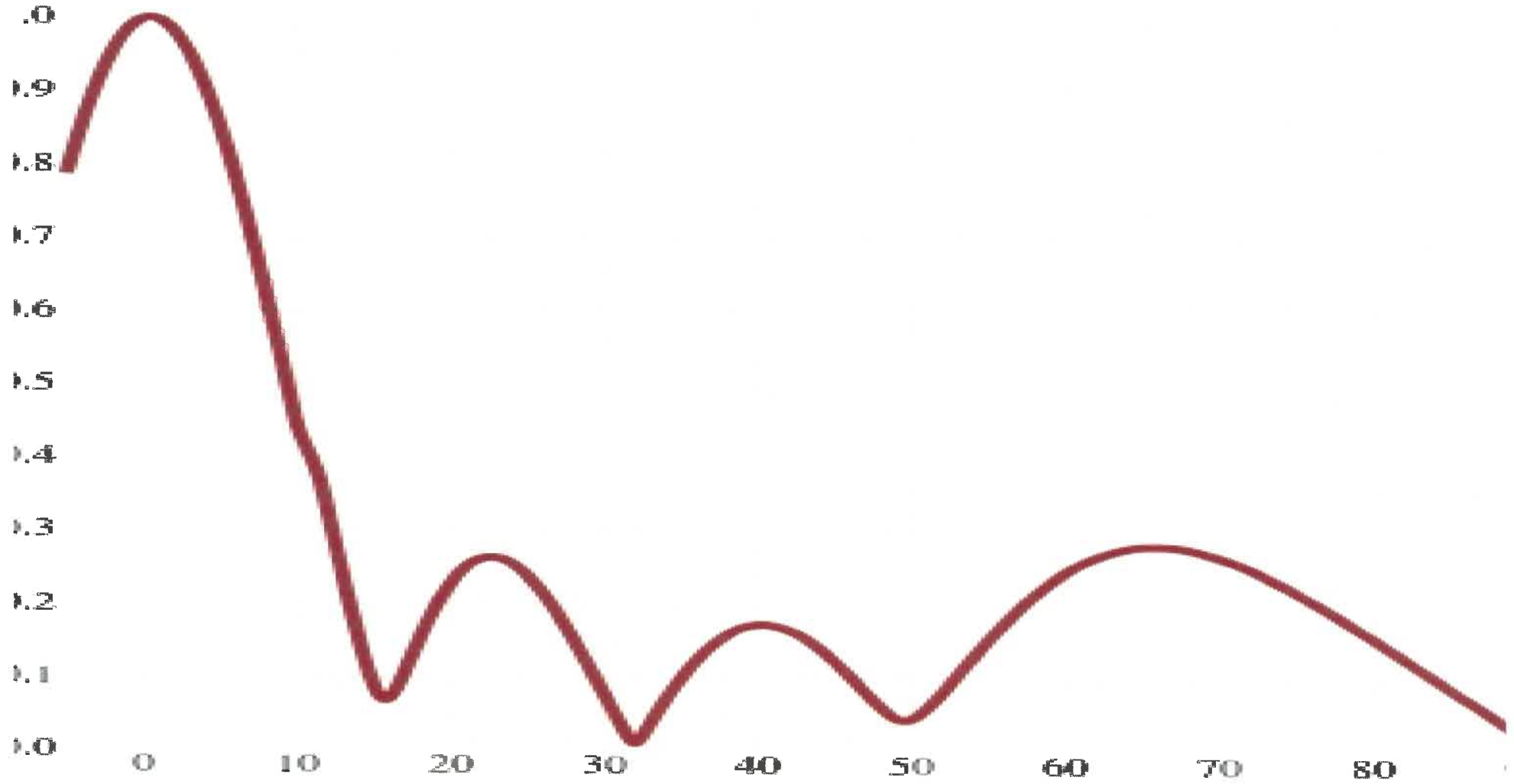


# Elevation pattern -5 to 10





vation pattern -5 to 90



## Azimuth Horizontal Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
2°	1.000	0.00	92°	1.000	0.00	182°	1.000	0.00	272°	1.000	0.00
4°	1.000	0.00	94°	1.000	0.00	184°	1.000	0.00	274°	1.000	0.00
6°	1.000	0.00	96°	1.000	0.00	186°	1.000	0.00	276°	1.000	0.00
8°	1.000	0.00	98°	1.000	0.00	188°	1.000	0.00	278°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
12°	1.000	0.00	102°	1.000	0.00	192°	1.000	0.00	282°	1.000	0.00
14°	1.000	0.00	104°	1.000	0.00	194°	1.000	0.00	284°	1.000	0.00
16°	1.000	0.00	106°	1.000	0.00	196°	1.000	0.00	286°	1.000	0.00
18°	1.000	0.00	108°	1.000	0.00	198°	1.000	0.00	288°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
22°	1.000	0.00	112°	1.000	0.00	202°	1.000	0.00	292°	1.000	0.00
24°	1.000	0.00	114°	1.000	0.00	204°	1.000	0.00	294°	1.000	0.00
26°	1.000	0.00	116°	1.000	0.00	206°	1.000	0.00	296°	1.000	0.00
28°	1.000	0.00	118°	1.000	0.00	208°	1.000	0.00	298°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
32°	1.000	0.00	122°	1.000	0.00	212°	1.000	0.00	302°	1.000	0.00
34°	1.000	0.00	124°	1.000	0.00	214°	1.000	0.00	304°	1.000	0.00
36°	1.000	0.00	126°	1.000	0.00	216°	1.000	0.00	306°	1.000	0.00
38°	1.000	0.00	128°	1.000	0.00	218°	1.000	0.00	308°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
42°	1.000	0.00	132°	1.000	0.00	222°	1.000	0.00	312°	1.000	0.00
44°	1.000	0.00	134°	1.000	0.00	224°	1.000	0.00	314°	1.000	0.00
46°	1.000	0.00	136°	1.000	0.00	226°	1.000	0.00	316°	1.000	0.00
48°	1.000	0.00	138°	1.000	0.00	228°	1.000	0.00	318°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
52°	1.000	0.00	142°	1.000	0.00	232°	1.000	0.00	322°	1.000	0.00
54°	1.000	0.00	144°	1.000	0.00	234°	1.000	0.00	324°	1.000	0.00
56°	1.000	0.00	146°	1.000	0.00	236°	1.000	0.00	326°	1.000	0.00
58°	1.000	0.00	148°	1.000	0.00	238°	1.000	0.00	328°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
62°	1.000	0.00	152°	1.000	0.00	242°	1.000	0.00	332°	1.000	0.00
64°	1.000	0.00	154°	1.000	0.00	244°	1.000	0.00	334°	1.000	0.00
66°	1.000	0.00	156°	1.000	0.00	246°	1.000	0.00	336°	1.000	0.00
68°	1.000	0.00	158°	1.000	0.00	248°	1.000	0.00	338°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
72°	1.000	0.00	162°	1.000	0.00	252°	1.000	0.00	342°	1.000	0.00
74°	1.000	0.00	164°	1.000	0.00	254°	1.000	0.00	344°	1.000	0.00
76°	1.000	0.00	166°	1.000	0.00	256°	1.000	0.00	346°	1.000	0.00
78°	1.000	0.00	168°	1.000	0.00	258°	1.000	0.00	348°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00
82°	1.000	0.00	172°	1.000	0.00	262°	1.000	0.00	352°	1.000	0.00
84°	1.000	0.00	174°	1.000	0.00	264°	1.000	0.00	354°	1.000	0.00
86°	1.000	0.00	176°	1.000	0.00	266°	1.000	0.00	356°	1.000	0.00
88°	1.000	0.00	178°	1.000	0.00	268°	1.000	0.00	358°	1.000	0.00

## Azimuth Pattern Tabulation, FCC

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00



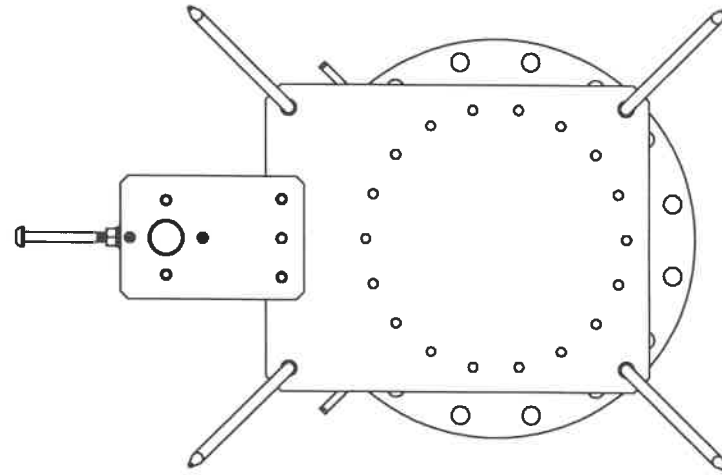
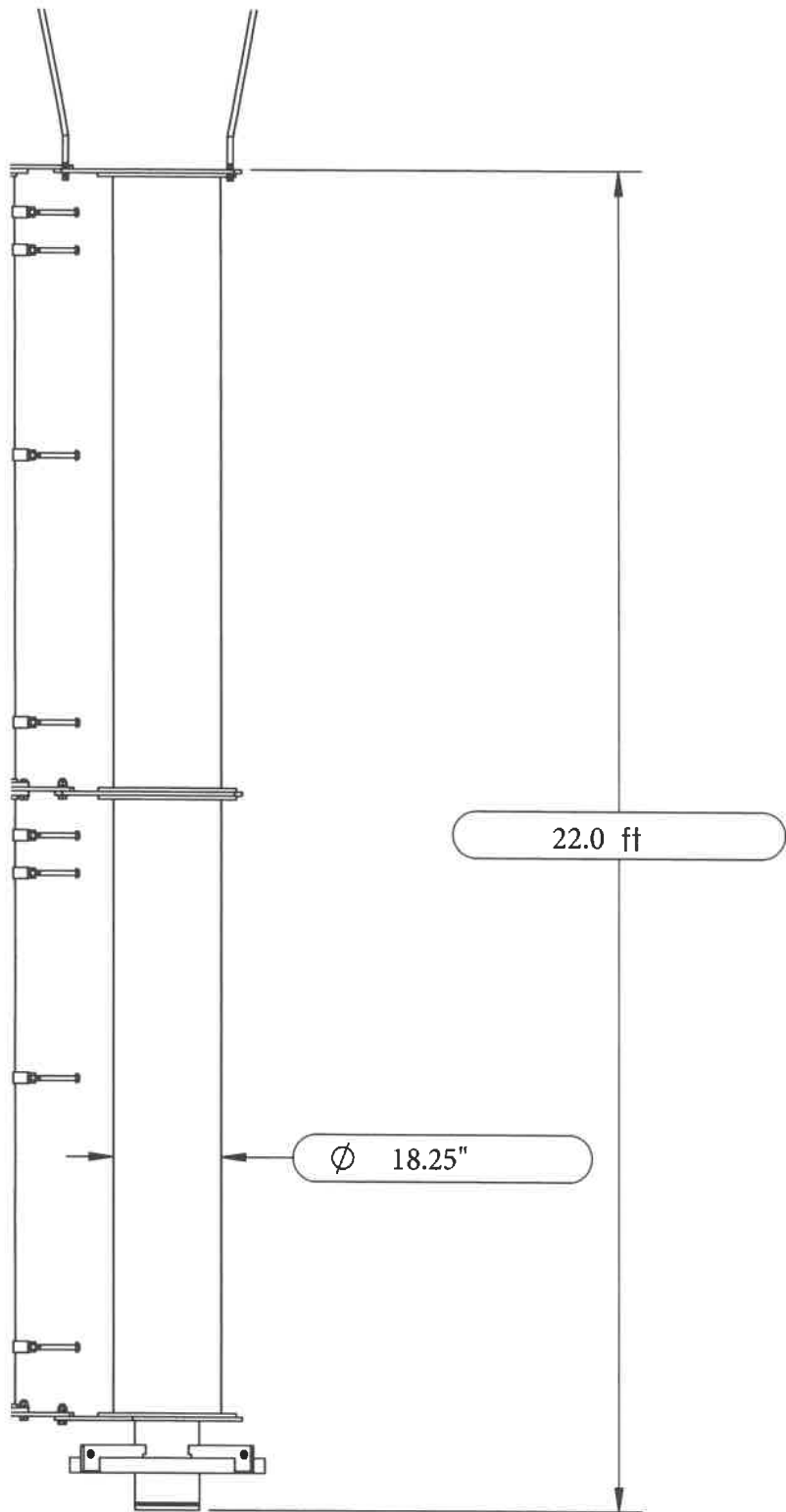
# Elevation Pattern Tabulation

-5 to 10 in 0.25 increments, 10 to 90 in 0.50 increments

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.786	-2.09	8.75	0.557	-5.08	35.00	0.100	-20.00	62.50	0.269	-11.40
-4.75	0.803	-1.91	9.00	0.534	-5.45	35.50	0.113	-18.94	63.00	0.272	-11.31
-4.50	0.821	-1.71	9.25	0.511	-5.83	36.00	0.125	-18.06	63.50	0.275	-11.21
-4.25	0.838	-1.54	9.50	0.487	-6.25	36.50	0.136	-17.33	64.00	0.277	-11.15
-4.00	0.853	-1.38	9.75	0.464	-6.67	37.00	0.145	-16.77	64.50	0.279	-11.09
-3.75	0.869	-1.22	10.00	0.441	-7.11	37.50	0.153	-16.31	65.00	0.280	-11.06
-3.50	0.883	-1.08	10.50	0.418	-7.58	38.00	0.160	-15.92	65.50	0.280	-11.06
-3.25	0.897	-0.94	11.00	0.395	-8.07	38.50	0.166	-15.60	66.00	0.280	-11.06
-3.00	0.909	-0.83	11.50	0.371	-8.61	39.00	0.170	-15.39	66.50	0.280	-11.06
-2.75	0.922	-0.71	12.00	0.325	-9.76	39.50	0.172	-15.29	67.00	0.279	-11.09
-2.50	0.933	-0.60	12.50	0.280	-11.06	40.00	0.174	-15.19	67.50	0.278	-11.12
-2.25	0.943	-0.51	13.00	0.235	-12.58	40.50	0.174	-15.19	68.00	0.276	-11.18
-2.00	0.953	-0.42	13.50	0.193	-14.29	41.00	0.172	-15.29	68.50	0.274	-11.24
-1.75	0.962	-0.34	14.00	0.153	-16.31	41.50	0.170	-15.39	69.00	0.271	-11.34
-1.50	0.970	-0.26	14.50	0.116	-18.71	42.00	0.166	-15.60	69.50	0.268	-11.44
-1.25	0.977	-0.20	15.00	0.086	-21.31	42.50	0.162	-15.81	70.00	0.265	-11.54
-1.00	0.983	-0.15	15.50	0.067	-23.48	43.00	0.156	-16.14	70.50	0.262	-11.63
-0.75	0.988	-0.10	16.00	0.068	-23.35	43.50	0.149	-16.54	71.00	0.258	-11.77
-0.50	0.992	-0.07	16.50	0.084	-21.51	44.00	0.141	-17.02	71.50	0.254	-11.90
-0.25	0.996	-0.03	17.00	0.107	-19.41	44.50	0.133	-17.52	72.00	0.250	-12.04
0.00	0.998	-0.02	17.50	0.131	-17.65	45.00	0.123	-18.20	72.50	0.245	-12.22
0.25	1.000	0.00	18.00	0.155	-16.19	45.50	0.113	-18.94	73.00	0.240	-12.40
0.50	1.000	0.00	18.50	0.177	-15.04	46.00	0.103	-19.74	73.50	0.235	-12.58
0.75	1.000	0.00	19.00	0.196	-14.15	46.50	0.092	-20.72	74.00	0.230	-12.77
1.00	0.998	-0.02	19.50	0.214	-13.39	47.00	0.081	-21.83	74.50	0.225	-12.96
1.25	0.996	-0.03	20.00	0.229	-12.80	47.50	0.070	-23.10	75.00	0.219	-13.19
1.50	0.992	-0.07	20.50	0.241	-12.36	48.00	0.060	-24.44	75.50	0.213	-13.43
1.75	0.988	-0.10	21.00	0.251	-12.01	48.50	0.051	-25.85	76.00	0.207	-13.68
2.00	0.983	-0.15	21.50	0.258	-11.77	49.00	0.044	-27.13	76.50	0.201	-13.94
2.25	0.977	-0.20	22.00	0.262	-11.63	49.50	0.042	-27.54	77.00	0.195	-14.20
2.50	0.970	-0.26	22.50	0.264	-11.57	50.00	0.044	-27.13	77.50	0.189	-14.47
2.75	0.962	-0.34	23.00	0.263	-11.60	50.50	0.050	-26.02	78.00	0.183	-14.75
3.00	0.954	-0.41	23.50	0.261	-11.67	51.00	0.059	-24.58	78.50	0.176	-15.09
3.25	0.944	-0.50	24.00	0.255	-11.87	51.50	0.069	-23.22	79.00	0.170	-15.39
3.50	0.933	-0.60	24.50	0.248	-12.11	52.00	0.081	-21.83	79.50	0.163	-15.76
3.75	0.922	-0.71	25.00	0.239	-12.43	52.50	0.093	-20.63	80.00	0.157	-16.08
4.00	0.909	-0.83	25.50	0.228	-12.84	53.00	0.106	-19.49	80.50	0.150	-16.48
4.25	0.897	-0.94	26.00	0.216	-13.31	53.50	0.118	-18.56	81.00	0.143	-16.89
4.50	0.883	-1.08	26.50	0.202	-13.89	54.00	0.130	-17.72	81.50	0.137	-17.27
4.75	0.868	-1.23	27.00	0.186	-14.61	54.50	0.142	-16.95	82.00	0.130	-17.72
5.00	0.853	-1.38	27.50	0.170	-15.39	55.00	0.154	-16.25	82.50	0.123	-18.20
5.25	0.837	-1.55	28.00	0.152	-16.36	55.50	0.165	-15.65	83.00	0.116	-18.71
5.50	0.821	-1.71	28.50	0.134	-17.46	56.00	0.176	-15.09	83.50	0.110	-19.17
5.75	0.803	-1.91	29.00	0.115	-18.79	56.50	0.186	-14.61	84.00	0.103	-19.74
6.00	0.786	-2.09	29.50	0.096	-20.35	57.00	0.196	-14.15	84.50	0.096	-20.35
6.25	0.767	-2.30	30.00	0.077	-22.27	57.50	0.206	-13.72	85.00	0.089	-21.01
6.50	0.748	-2.52	30.50	0.057	-24.88	58.00	0.215	-13.35	85.50	0.082	-21.72
6.75	0.728	-2.76	31.00	0.038	-28.40	58.50	0.223	-13.03	86.00	0.075	-22.50
7.00	0.708	-3.00	31.50	0.019	-34.42	59.00	0.231	-12.73	86.50	0.069	-23.22
7.25	0.688	-3.25	32.00	0.005	-46.02	59.50	0.238	-12.47	87.00	0.062	-24.15
7.50	0.667	-3.52	32.50	0.020	-33.98	60.00	0.245	-12.22	87.50	0.055	-25.19
7.75	0.645	-3.81	33.00	0.038	-28.40	60.50	0.251	-12.01	88.00	0.048	-26.38
8.00	0.623	-4.11	33.50	0.055	-25.19	61.00	0.256	-11.84	88.50	0.041	-27.74
8.25	0.601	-4.42	34.00	0.071	-22.97	61.50	0.261	-11.67	89.00	0.034	-29.37
8.50	0.579	-4.75	34.50	0.086	-21.31	62.00	0.265	-11.54	89.50	0.027	-31.37
8.75	0.557	-5.08	35.00	0.100	-20.00	62.50	0.269	-11.40	90.00	0.021	-33.56

## Azimuth Vertical Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
2°	1.000	0.00	92°	1.000	0.00	182°	1.000	0.00	272°	1.000	0.00
4°	1.000	0.00	94°	1.000	0.00	184°	1.000	0.00	274°	1.000	0.00
6°	1.000	0.00	96°	1.000	0.00	186°	1.000	0.00	276°	1.000	0.00
8°	1.000	0.00	98°	1.000	0.00	188°	1.000	0.00	278°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
12°	1.000	0.00	102°	1.000	0.00	192°	1.000	0.00	282°	1.000	0.00
14°	1.000	0.00	104°	1.000	0.00	194°	1.000	0.00	284°	1.000	0.00
16°	1.000	0.00	106°	1.000	0.00	196°	1.000	0.00	286°	1.000	0.00
18°	1.000	0.00	108°	1.000	0.00	198°	1.000	0.00	288°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
22°	1.000	0.00	112°	1.000	0.00	202°	1.000	0.00	292°	1.000	0.00
24°	1.000	0.00	114°	1.000	0.00	204°	1.000	0.00	294°	1.000	0.00
26°	1.000	0.00	116°	1.000	0.00	206°	1.000	0.00	296°	1.000	0.00
28°	1.000	0.00	118°	1.000	0.00	208°	1.000	0.00	298°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
32°	1.000	0.00	122°	1.000	0.00	212°	1.000	0.00	302°	1.000	0.00
34°	1.000	0.00	124°	1.000	0.00	214°	1.000	0.00	304°	1.000	0.00
36°	1.000	0.00	126°	1.000	0.00	216°	1.000	0.00	306°	1.000	0.00
38°	1.000	0.00	128°	1.000	0.00	218°	1.000	0.00	308°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
42°	1.000	0.00	132°	1.000	0.00	222°	1.000	0.00	312°	1.000	0.00
44°	1.000	0.00	134°	1.000	0.00	224°	1.000	0.00	314°	1.000	0.00
46°	1.000	0.00	136°	1.000	0.00	226°	1.000	0.00	316°	1.000	0.00
48°	1.000	0.00	138°	1.000	0.00	228°	1.000	0.00	318°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
52°	1.000	0.00	142°	1.000	0.00	232°	1.000	0.00	322°	1.000	0.00
54°	1.000	0.00	144°	1.000	0.00	234°	1.000	0.00	324°	1.000	0.00
56°	1.000	0.00	146°	1.000	0.00	236°	1.000	0.00	326°	1.000	0.00
58°	1.000	0.00	148°	1.000	0.00	238°	1.000	0.00	328°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
62°	1.000	0.00	152°	1.000	0.00	242°	1.000	0.00	332°	1.000	0.00
64°	1.000	0.00	154°	1.000	0.00	244°	1.000	0.00	334°	1.000	0.00
66°	1.000	0.00	156°	1.000	0.00	246°	1.000	0.00	336°	1.000	0.00
68°	1.000	0.00	158°	1.000	0.00	248°	1.000	0.00	338°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
72°	1.000	0.00	162°	1.000	0.00	252°	1.000	0.00	342°	1.000	0.00
74°	1.000	0.00	164°	1.000	0.00	254°	1.000	0.00	344°	1.000	0.00
76°	1.000	0.00	166°	1.000	0.00	256°	1.000	0.00	346°	1.000	0.00
78°	1.000	0.00	168°	1.000	0.00	258°	1.000	0.00	348°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00
82°	1.000	0.00	172°	1.000	0.00	262°	1.000	0.00	352°	1.000	0.00
84°	1.000	0.00	174°	1.000	0.00	264°	1.000	0.00	354°	1.000	0.00
86°	1.000	0.00	176°	1.000	0.00	266°	1.000	0.00	356°	1.000	0.00
88°	1.000	0.00	178°	1.000	0.00	268°	1.000	0.00	358°	1.000	0.00



VIEW A-A

4 Bay Channel 8 3650 lbs

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN BY	SM 01/06/17
.X ± 0.1		CHECKED	



WSWP		NO ICE	90 MPH				
Antenna Model	=	ATC-BCE040-V0-8					
Number of Antenna Sections	=	1					
Size	=	6.7056 m	0.46 m				
Area	=	3.108 m <sup>2</sup>					
Aspect ratio		14.47					
$C = [(l)(kzt)(kz)]^{0.5} * (V)(D)$		30.60					
Ca (With respect to aspect ratio), Consider Flat Surface. In order for a structural component to be considered as a round structure component the component must have a round profile on the windward and leeward sides of the component (TIA 222g - 2.6.9.1.1 Notes). Linear interpolation has been made for Ca value.		0.60					
Total Effective Projected Area of Appurtenances							
ΣEPA (CaAa)	=	1.865 Sq.m	20.1 Sq ft				
Structure Height H	=	120 m					
Structure Base Elevation @ AGL	=	901 m					
Antenna Elevation z	=	1017.6472 m					
Velocity Pressure qz	=	2270.60 Pa					
where $qz=0.613 (kz) (kzt) (kd) (V^2)(I)$	=						
Exposure Coefficient Kz	=	2.692	Table 2.4 (TIA 222G)				
Topographic Factor Kzt	=	1	TIA 222G, Cl 2.6.6.4				
Wind Direction Probability Factor Kd	=	0.85	Table 2.2 (TIA 222G)				
Gust Response Factor Gh	=	1.35	TIA 222G, Cl 2.6.7.1				
Velocity V, Kph	=	144.8406	kph				
Velocity V, m/s	=	40.23	m/s				
Importance Factor I	=	1					
Wind load Factor	=	1					
where antenna wind force, $F=qz(Gh)(\Sigma EPA)(wind\ load\ factor)$	=						
Antenna Wind Force	=	<table border="1"> <tr> <td>5717</td> <td>N</td> </tr> <tr> <td>1284.696834</td> <td>lb-f</td> </tr> </table>		5717	N	1284.696834	lb-f
5717	N						
1284.696834	lb-f						
Antenna Weight		3650 lbs					

## Design and Manufacturing Process

Design Single Layer Computer Simulation to determine feasibility and starting locations for physical single bay model. Full Scale Single layer is preset to resonance coupling based on the required elevation pattern.

Chamber work begins, first optimizing the horizontal pattern followed by vertical component. Model is then rechecked for coupling resonance. At this time axial ratio measurements are made to ensure a quality signal. After any final adjustments coupling is checked again. Model is firmed up by replacing any temporary radiator directors with machined samples.

Model is measured and documented for array design. Array is design using proprietary software. Unique and non-uniform slot spacing generates greater control over the beam-tilt null-fill and bandwidth.

Mechanical Review continues the process, once structural approval is determined drafting of any specialty parts commences. Once all prints are complete a design review signs off on electrical and mechanical components. Non-stock items are ordered from pre-approved vendors.

Alive utilizes parasitic vertical elements at each slot to deliver the same elevation gain and pattern per polarization. This practice provides a more consistent signal helping the axial ratio and maximizing the gain over aperture space minimizing the cost of transmitter operation. Full enclosed fiberglass radomes provide a pressurized solution which will protect the antenna from the harsh environment.

Alive Telecom follows ISO9001 standards. Each employee is trained on document procedures including control of records, non-conforming products, corrective and preventative actions. Alive Telecom performs an annual internal audit of quality management.

Once materials arrive and are inspected, manufacturing begins. All welds are performed by certified welders and 3<sup>rd</sup> party tested. Assembly and "pretuning" begins once all piece parts are fabricated. Array measurements are made in a near-field probe method.

Each element is measured for amplitude and phase relative to the first bay. The data along with the spacing file is used to calculate the far field elevation pattern. Minor adjustments are made to the slot to achieve the actual pattern over laying the design. The top short location is adjusted also to assist in the antenna bandwidth. All adjustments are locked down and the input is matched utilizing an impedance transformer or in-line stub.



Alive Telecom 9850 W 190<sup>th</sup> Unit F Mokena IL 60448

708 478 6886

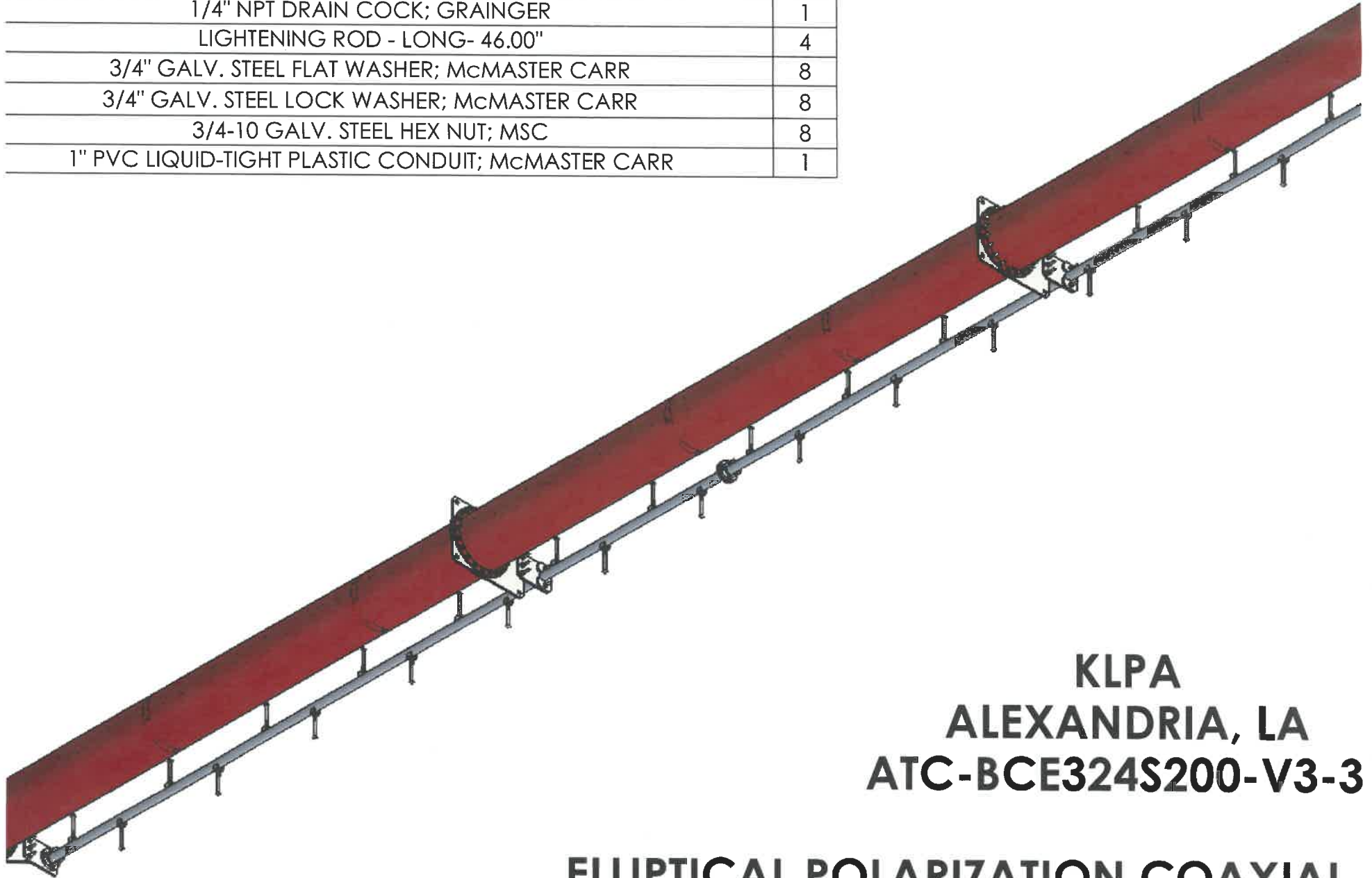
[www.alivetele.com](http://www.alivetele.com)

@alivetelecom

info@alivetele.com

**For Reference Only**

1" NPT PLASTIC CONDUIT ADAPTER STRAIGHT; McMASTER CARR	2
1/4" NPT DRAIN COCK; GRAINGER	1
LIGHTENING ROD - LONG- 46.00"	4
3/4" GALV. STEEL FLAT WASHER; McMASTER CARR	8
3/4" GALV. STEEL LOCK WASHER; McMASTER CARR	8
3/4-10 GALV. STEEL HEX NUT; MSC	8
1" PVC LIQUID-TIGHT PLASTIC CONDUIT; McMASTER CARR	1



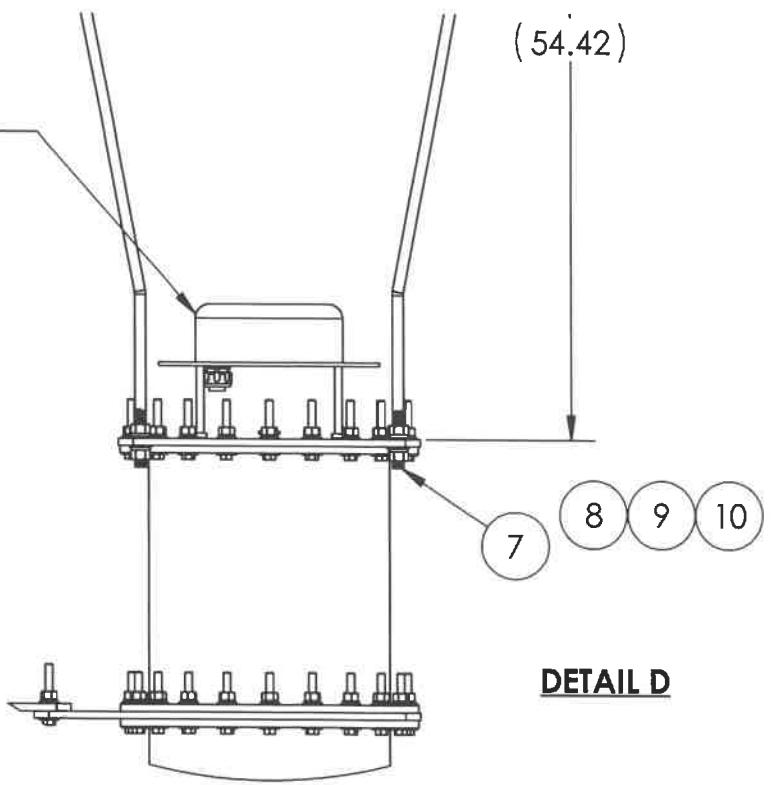
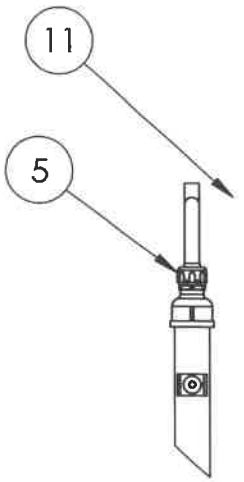
**KLPA  
ALEXANDRIA, LA  
ATC-BCE324S200-V3-3**

**ELLIPTICAL POLARIZATION COAXIAL  
TOP MOUNT**

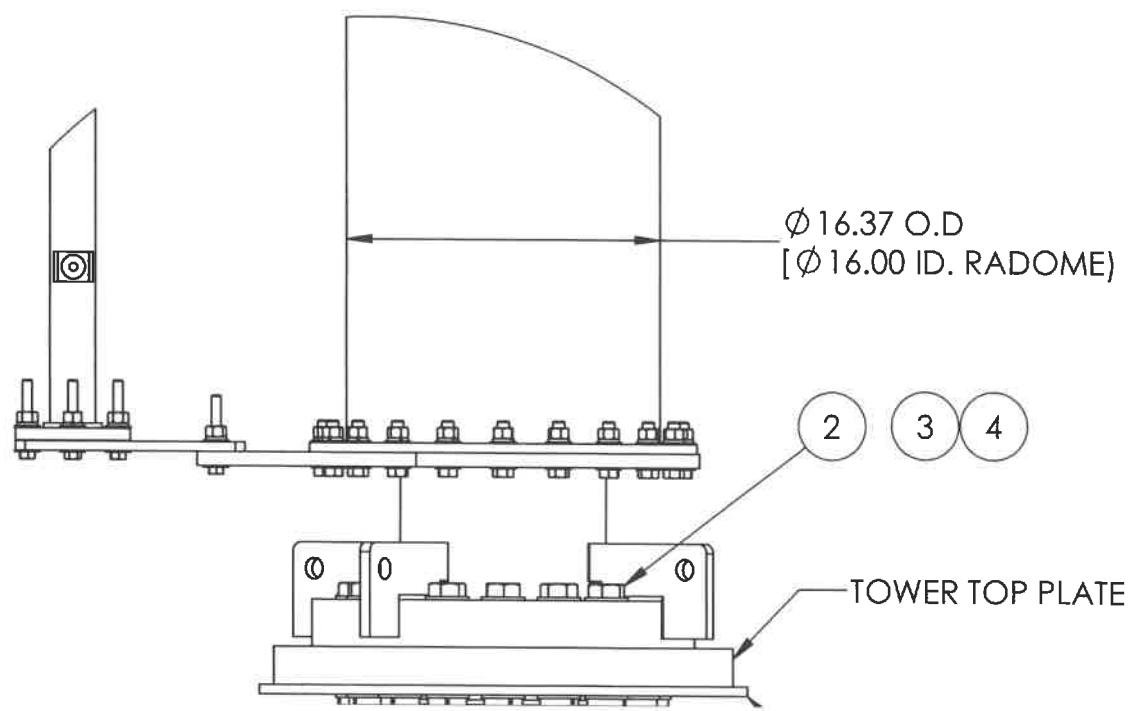
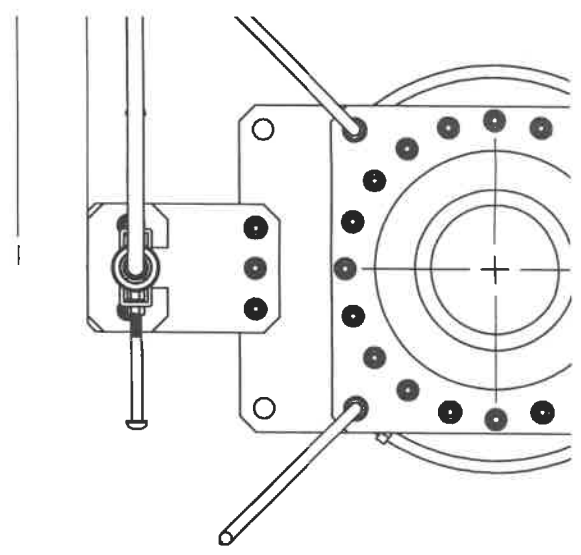
UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN BY	SM	12/06/17
.X ± 0.1	CHECKED		

568.50  
[47'-4.25"]

EXISTING BEACON

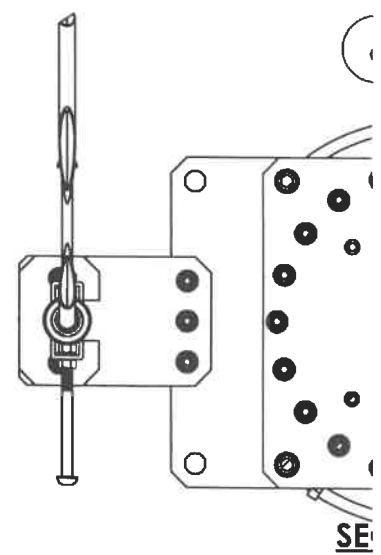


**DETAIL D**



Ø 16.37 O.D  
[Ø 16.00 ID. RADOME]

TOWER TOP PLATE



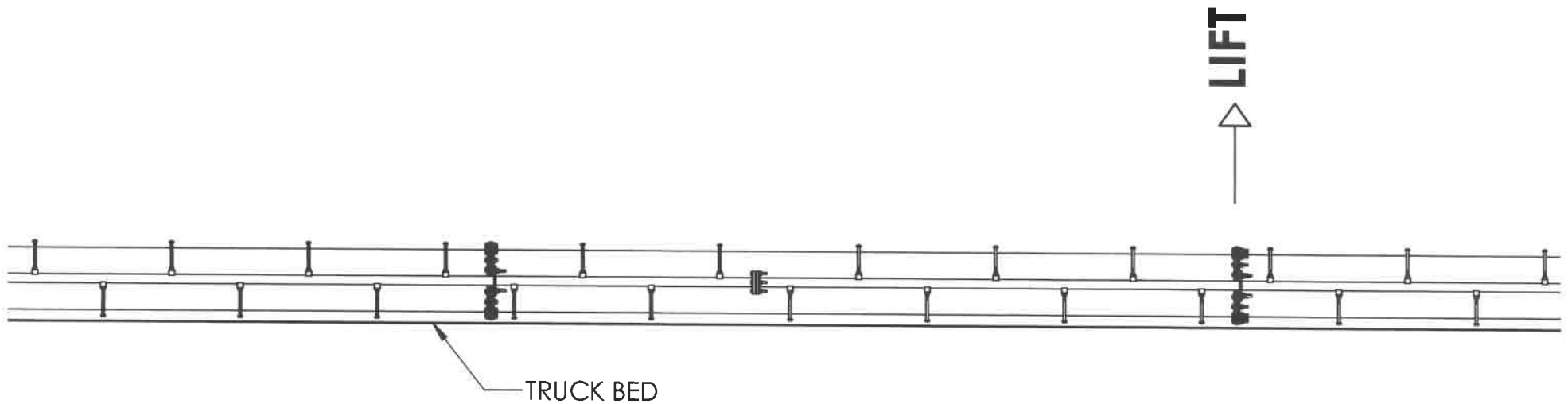
**SE**

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN BY	SM 12/06/17
X ± 0.1		CHECKED	



## LIFTING INSTRUCTIONS

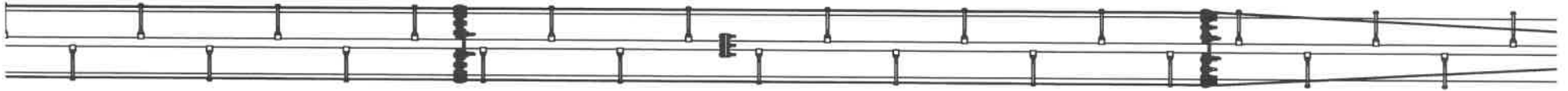
LIFT ANTENNA FROM BOTTOM AND TOP-CENTER RADOME PLATES USING SHACKLES AS SHOWN. **DO NOT** LIFT ANTENNA BY FIBERGLASS RADOMES, **DAMAGE WILL OCCUR.**



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN BY	SM 02/27/18
.X ± 0.1		CHECKED	

## LIFTING INSTRUCTIONS

LIFT ANTENNA FROM BOTTOM AND TOP-CENTER  
RADOME PLATES USING SHACKLES AS SHOWN. **DO**  
**NOT** LIFT ANTENNA BY FIBERGLASS RADOMES,  
**DAMAGE WILL OCCUR.**



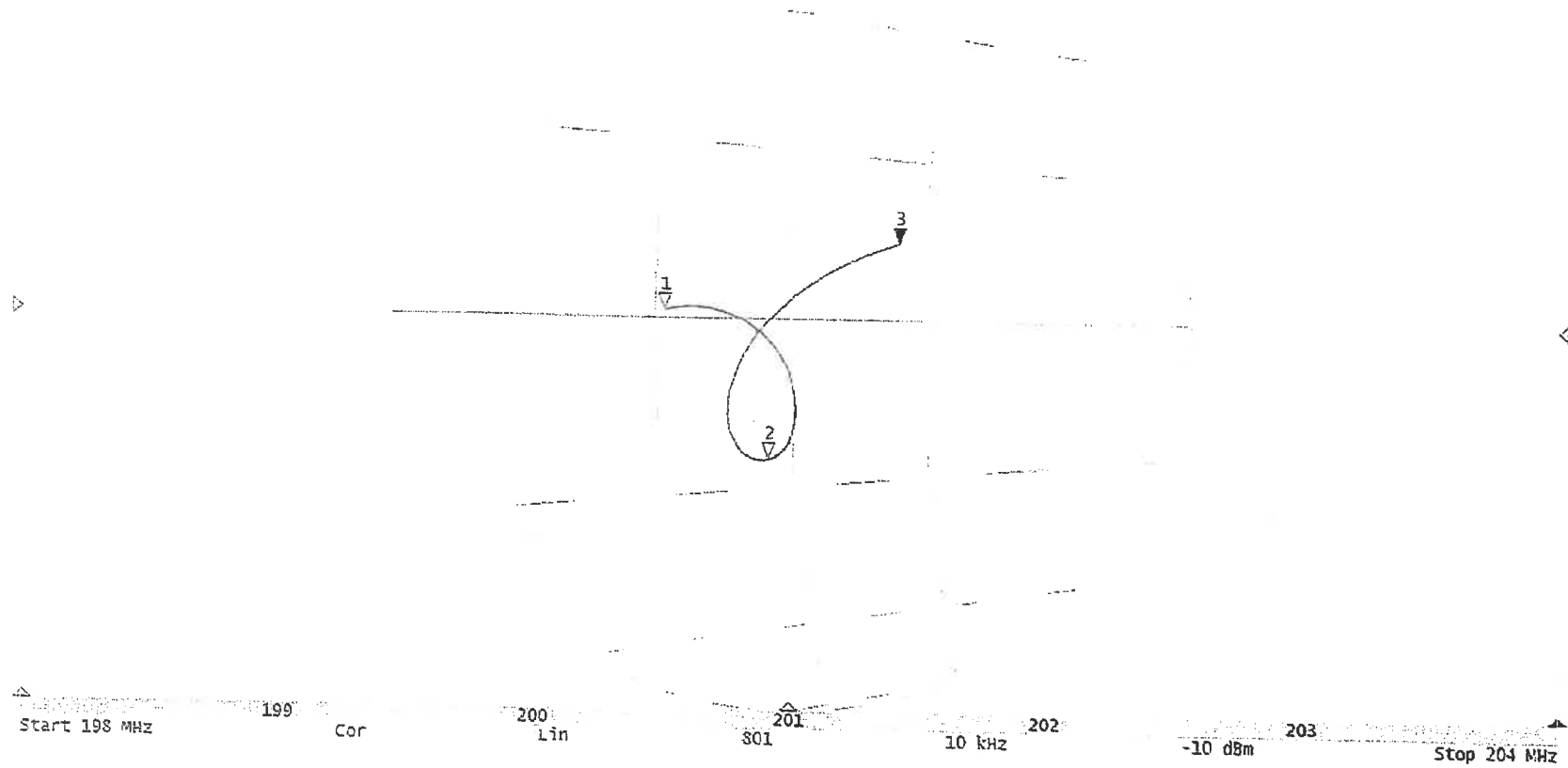
UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN BY	SM 02/27/18
.X ± 0.1		CHECKED	

### FINAL DATA – SMITH CHART

S11 Smith (Log) 0.1 [F1]

11/5/2019 8:39:40 AM  
Dat

1	198.00000 MHz	-30.058 dB	176.51 °
2	201.00000 MHz	-28.844 dB	98.311 °
3	204.00000 MHz	-29.427 dB	35.065 °



P/N: ATC-BCC43M-V3-11  
CALL LETTER: WVTT CH. 11  
S/N: 11036

# Transmission Line System Planning Guide (Typical Installation)

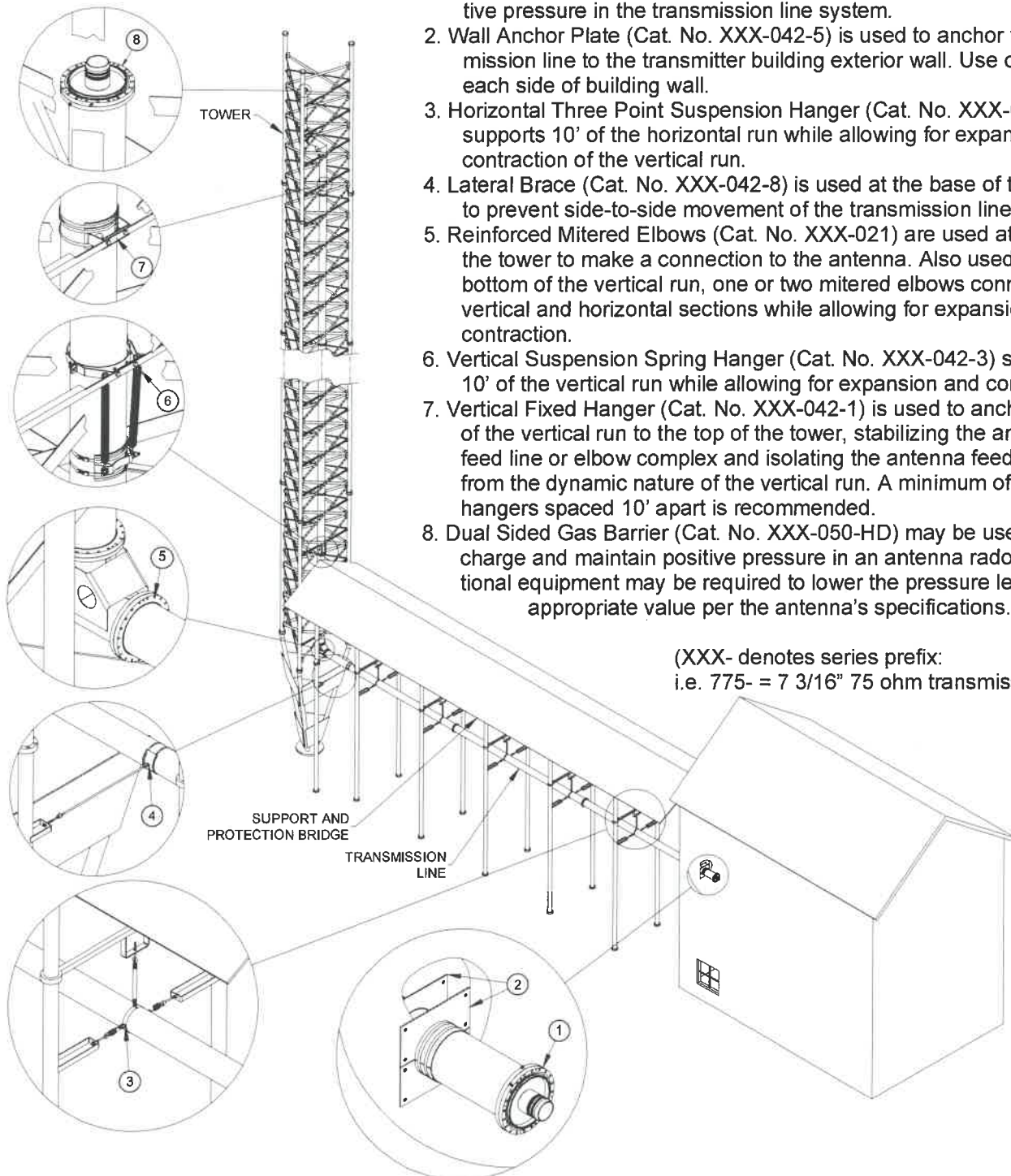
Advances in materials, manufacturing procedures and design techniques have greatly improved rigid coaxial transmission line performance and longevity, but transmission line installations have followed the same basic principles for many years. Use the Typical Installation pictured here, along with the sample Bill of Materials on the next page, as planning guides to determine your requirements. Each installation will differ as to tower location and orientation, distance from the tower base to the transmitter building, antenna type and orientation, etc. If your installation involves special requirements, do not hesitate to contact us. If our complete line of components and accessories does not answer your needs, our computer aided designing, testing, and manufacturing facilities can quickly produce "one-of-a-kind" custom components to meet any challenge.

## Typical Components

1. Gas Barrier (Cat. No. XXX-050) is used to charge and maintain positive pressure in the transmission line system.
2. Wall Anchor Plate (Cat. No. XXX-042-5) is used to anchor the transmission line to the transmitter building exterior wall. Use one on each side of building wall.
3. Horizontal Three Point Suspension Hanger (Cat. No. XXX-042-17) supports 10' of the horizontal run while allowing for expansion and contraction of the vertical run.
4. Lateral Brace (Cat. No. XXX-042-8) is used at the base of the tower to prevent side-to-side movement of the transmission line.
5. Reinforced Mitered Elbows (Cat. No. XXX-021) are used at the top of the tower to make a connection to the antenna. Also used at the bottom of the vertical run, one or two mitered elbows connect the vertical and horizontal sections while allowing for expansion and contraction.
6. Vertical Suspension Spring Hanger (Cat. No. XXX-042-3) supports 10' of the vertical run while allowing for expansion and contraction.
7. Vertical Fixed Hanger (Cat. No. XXX-042-1) is used to anchor the top of the vertical run to the top of the tower, stabilizing the antenna feed line or elbow complex and isolating the antenna feed point from the dynamic nature of the vertical run. A minimum of two fixed hangers spaced 10' apart is recommended.
8. Dual Sided Gas Barrier (Cat. No. XXX-050-HD) may be used to charge and maintain positive pressure in an antenna radome; additional equipment may be required to lower the pressure level to an appropriate value per the antenna's specifications.

(XXX- denotes series prefix:

i.e. 775- = 7 3/16" 75 ohm transmission line.)





## Bill of Materials

This guide is designed to assist you in planning a rigid coaxial transmission line system. The left-hand side of the page lists all of the components required to assemble a typical system. On the right side of the page are helpful hints and formulas for calculating the quantities of each component required to construct the system. If you have questions or require assistance in planning a specific installation, please contact MYAT at 201-684-0100 or [sales@myat.com](mailto:sales@myat.com)

ITEM	QTY.	MYAT CAT. NO.	DESCRIPTION	
<b>Vertical Run</b>				
01	___	XXX-007	Transmission line sections, expansion compensation inner conductors: ___ ft. per section, including sections for horizontal run, plus one (1) section for field cuts.	To calculate the number of line sections required for the site configuration: $\frac{\text{Horz. Run (ft.)} + \text{Vert. Run (ft.)}}{\text{Line section length (ft.)}} = \text{Total \# of sections}^*$ * Always round up. Add one section for field cuts
02	___	XXX-042-1	Fixed Hanger.	Used to anchor top of vertical run to tower. 2 pcs. req'd for vertical runs up to 1000 ft. 3 pcs. req'd for vertical runs up to 1500 ft. 4 pcs. req'd for vertical runs up to 2000 ft.
03	___	XXX-042-3	Vertical spring suspension hanger, spacing every 10'.	To calculate the number of vertical spring suspension hangers required: $\frac{\text{Total Vert. Run (ft.)}}{10} = \# \text{ Vertical spring hangers}$
04	___	XXX-021	Reinforced mitered elbows.	Typically four elbows are recommended: 1 at the vertical/horizontal junction, and 3 for the elbow complex at the top of the tower to the antenna input.
<b>Horizontal Run</b>				
05	___	XXX-042-8	Lateral brace.	2 pcs. recommended at base of vertical run to prevent lateral movement, may be located at tower end of horizontal run.
06	___	XXX-042-17	Horizontal spring suspension hanger.	To calculate the number of horizontal spring suspension hangers required: $\frac{\text{Total Horiz. Run (ft.)}}{10} = \# \text{ of horizontal spring hangers}$
07	___	XXX-042-5	Wall anchor plate	2 pcs. required, one for each side of wall.
<b>Pressurization Equipment</b>				
08	___	XXX-050	Gas Barrier.	1 pc. required to pressurize at transmitter building. 1 pc. optional at top of tower.
09	___	XXX-050-HD	Dual sided gas barrier.	1 pc. optional at top of tower to enable pressurization of antenna radome.
<b>Spares &amp; Accessories</b>				
10	___	XXX-010	Anchor insulator connector.	At least 2 pcs. for field cut connections.
11	___	XXX-010-E	Expansion type anchor insulator connector.	At least 2 pcs. for use as spares.
12	___	XXX-011	"O" ring for flange junctions.	At least 2 pcs. as spares to cover parts lost or damaged during installation.
13	___	XXX-012	Hardware kit for flange junctions.	At least 2 kits as spares to cover parts lost or damaged during installation.
14	___	XXX-013	Field flange adapter, soft solder type, to flange field cut line.	2 pcs. recommended for flanging field cuts.
15	___	XXX-015	Cover Plate / End cap.	1 pc. required to seal line during work stoppages.
16	___	XXX-042-24	Outer conductor cut-off guide.	1 pc. required to aid in making square field cuts.
17	___	XXX-042-25	Inner conductor cut-off guide.	1 pc. required to aid in making square field cuts.

### "XXX" is the MYAT line series number, See list below

901-Series, 9 3/16" 50 Ohm	401-Series, 4 1/16" 50 Ohm
801-Series, 8 3/16" 75 Ohm	301-Series, 3 1/8" 50 Ohm
775-Series, 7 3/16" 75 Ohm	201-Series, 1 5/8" 50 Ohm
701-Series, 6 1/8" 75 Ohm	101-Series, 7/8" 50 Ohm
601-Series, 6 1/8" 50 Ohm	



### 3 1/8" 50 Ohm Rigid Coaxial Transmission Line, TV Ratings and Efficiency in Percent

CH #	Freq. MHz	ATTEN. in dB/100 ft	Average Power (Kilowatts)	250 ft	500 ft	750 ft	1000 ft	1250 ft	1500 ft	1750 ft	2000 ft
2	54	0.068	71.210	96.14	92.44	88.87	85.45	82.15	78.98	75.94	73.01
3	60	0.072	67.556	95.94	92.04	88.31	84.72	81.28	77.98	74.82	71.78
4	66	0.076	64.412	95.75	91.67	87.77	84.04	80.46	77.04	73.76	70.63
5	76	0.081	60.025	95.44	91.09	86.94	82.98	79.20	75.59	72.14	68.85
6	82	0.084	57.787	95.27	90.76	86.47	82.38	78.48	74.77	71.24	67.87
7	174	0.123	39.670	93.19	86.83	80.92	75.40	70.26	65.48	61.01	56.86
8	180	0.125	39.003	93.07	86.63	80.62	75.04	69.84	65.00	60.50	56.31
9	186	0.127	38.369	92.96	86.42	80.34	74.68	69.43	64.54	60.00	55.78
10	192	0.129	37.765	92.85	86.22	80.06	74.34	69.02	64.09	59.51	55.26
11	198	0.131	37.188	92.75	86.02	79.78	74.00	68.63	63.65	59.03	54.75
12	204	0.133	36.637	92.64	85.83	79.51	73.66	68.24	63.22	58.57	54.26
13	210	0.135	36.110	92.54	85.63	79.25	73.33	67.86	62.80	58.11	53.78
14	470	0.202	24.137	89.05	79.29	70.61	62.88	55.99	49.86	44.40	39.53
15	476	0.203	23.985	88.98	79.18	70.45	62.69	55.78	49.64	44.17	39.30
16	482	0.204	23.835	88.92	79.06	70.30	62.51	55.58	49.42	43.94	39.07
17	488	0.205	23.688	88.85	78.95	70.14	62.32	55.38	49.20	43.72	38.84
18	494	0.207	23.544	88.79	78.83	69.99	62.14	55.18	48.99	43.50	38.62
19	500	0.208	23.402	88.72	78.72	69.84	61.97	54.98	48.78	43.28	38.40
20	506	0.209	23.263	88.66	78.61	69.69	61.79	54.78	48.57	43.06	38.18
21	512	0.210	23.126	88.60	78.49	69.54	61.61	54.59	48.36	42.85	37.96
22	518	0.212	22.992	88.53	78.38	69.40	61.44	54.39	48.16	42.64	37.75
23	524	0.213	22.860	88.47	78.27	69.25	61.27	54.20	47.95	42.43	37.54
24	530	0.214	22.730	88.41	78.16	69.10	61.10	54.01	47.75	42.22	37.33
25	536	0.215	22.602	88.35	78.05	68.96	60.93	53.83	47.56	42.01	37.12
26	542	0.216	22.477	88.29	77.95	68.82	60.76	53.64	47.36	41.81	36.91
27	548	0.218	22.354	88.23	77.84	68.68	60.59	53.46	47.16	41.61	36.71
28	554	0.219	22.232	88.17	77.73	68.53	60.42	53.27	46.97	41.41	36.51
29	560	0.220	22.113	88.11	77.63	68.40	60.26	53.09	46.78	41.22	36.31
30	566	0.221	21.995	88.05	77.52	68.26	60.10	52.91	46.59	41.02	36.12
31	572	0.222	21.880	87.99	77.42	68.12	59.94	52.74	46.40	40.83	35.92
32	578	0.223	21.766	87.93	77.31	67.98	59.78	52.56	46.22	40.64	35.73
33	584	0.225	21.654	87.87	77.21	67.85	59.62	52.39	46.03	40.45	35.54
34	590	0.226	21.543	87.81	77.11	67.71	59.46	52.21	45.85	40.26	35.35
35	596	0.227	21.435	87.75	77.01	67.58	59.30	52.04	45.67	40.08	35.17

CH #	Freq. MHz	ATTEN. in dB/100 ft	Average Power (Kilowatts)	250 ft	500 ft	750 ft	1000 ft	1250 ft	1500 ft	1750 ft	2000 ft
36	602	0.228	21.327	87.70	76.91	67.45	59.15	51.87	45.49	39.89	34.88
37	608	0.229	21.222	87.64	76.81	67.31	58.99	51.70	45.31	39.71	34.80
38	614	0.230	21.118	87.58	76.71	67.18	58.84	51.53	45.13	39.53	34.62
39	620	0.231	21.016	87.53	76.61	67.05	58.69	51.37	44.96	39.35	34.44
40	626	0.233	20.915	87.47	76.51	66.92	58.54	51.20	44.79	39.17	34.27
41	632	0.234	20.815	87.41	76.41	66.79	58.39	51.04	44.61	39.00	34.09
42	638	0.235	20.717	87.36	76.31	66.67	58.24	50.88	44.44	38.83	33.92
43	644	0.236	20.620	87.30	76.22	66.54	58.09	50.72	44.28	38.65	33.75
44	650	0.237	20.525	87.25	76.12	66.41	57.94	50.56	44.11	38.48	33.58
45	656	0.238	20.431	87.19	76.03	66.29	57.80	50.40	43.94	38.31	33.41
46	662	0.239	20.338	87.14	75.93	66.17	57.66	50.24	43.78	38.15	33.24
47	668	0.240	20.246	87.08	75.84	66.04	57.51	50.08	43.61	37.98	33.08
48	674	0.241	20.156	87.03	75.74	65.92	57.37	49.93	43.45	37.82	32.91
49	680	0.242	20.067	86.98	75.65	65.80	57.23	49.77	43.29	37.65	32.75
50	686	0.243	19.979	86.92	75.56	65.68	57.09	49.62	43.13	37.49	32.59
51	692	0.245	19.892	86.87	75.46	65.56	56.95	49.47	42.98	37.33	32.43
52	698	0.246	19.807	86.82	75.37	65.44	56.81	49.32	42.82	37.17	32.27
53	704	0.247	19.722	86.76	75.28	65.32	56.67	49.17	42.66	37.02	32.12
54	710	0.248	19.638	86.71	75.19	65.20	56.54	49.02	42.51	36.86	31.96
55	716	0.249	19.556	86.66	75.10	65.08	56.40	48.88	42.36	36.71	31.81
56	722	0.250	19.475	86.61	75.01	64.96	56.26	48.73	42.20	36.55	31.66
57	728	0.251	19.394	86.56	74.92	64.85	56.13	48.58	42.05	36.40	31.51
58	734	0.252	19.315	86.51	74.83	64.73	56.00	48.44	41.90	36.25	31.36
59	740	0.253	19.236	86.45	74.74	64.62	55.87	48.30	41.76	36.10	31.21
60	746	0.254	19.159	86.40	74.65	64.50	55.73	48.16	41.61	35.95	31.06
61	752	0.255	19.082	86.35	74.57	64.39	55.60	48.01	41.46	35.80	30.92
62	758	0.256	19.007	86.30	74.48	64.28	55.47	47.87	41.32	35.66	30.77
63	764	0.257	18.932	86.25	74.39	64.17	55.34	47.74	41.17	35.51	30.63
64	770	0.258	18.858	86.20	74.31	64.05	55.22	47.60	41.03	35.37	30.49
65	776	0.259	18.785	86.15	74.22	63.94	55.09	47.46	40.89	35.23	30.35
66	782	0.260	18.713	86.10	74.14	63.83	54.96	47.32	40.75	35.08	30.21
67	788	0.261	18.641	86.05	74.05	63.72	54.84	47.19	40.61	34.94	30.07
68	794	0.262	18.571	86.00	73.97	63.61	54.71	47.05	40.47	34.80	29.93
69	800	0.263	18.501	85.96	73.88	63.51	54.59	46.92	40.33	34.67	29.80

Standard Conditions:

Attenuation: Ambient Temperature 20°C (68°F), Dry Air, Sea Level Atmospheric Pressure, VSWR 1.0, 0KW

Average Power: Ambient Temperature 40°C (104°F), Inner Conductor Temperature 100°C (212°F), Dry Air, Sea Level Atmospheric Pressure, VSWR 1.0

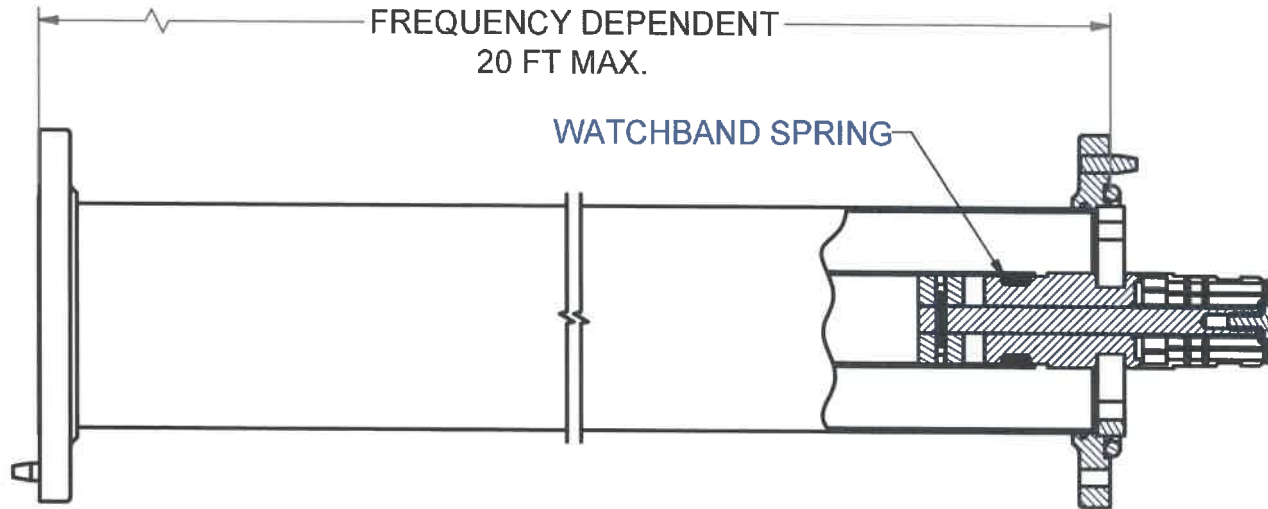
FEATURES:


- 3 1/8", 50 OHM, E.I.A. TRANSMISSION LINE
- EXPANSION TYPE INNER CONDUCTOR
- ROHS MATERIAL COMPLIANT

# CATALOG No. 301-007

SUPPLIED WITH:

- O-RING
- HARDWARE KIT
- ANCHOR CONNECTOR

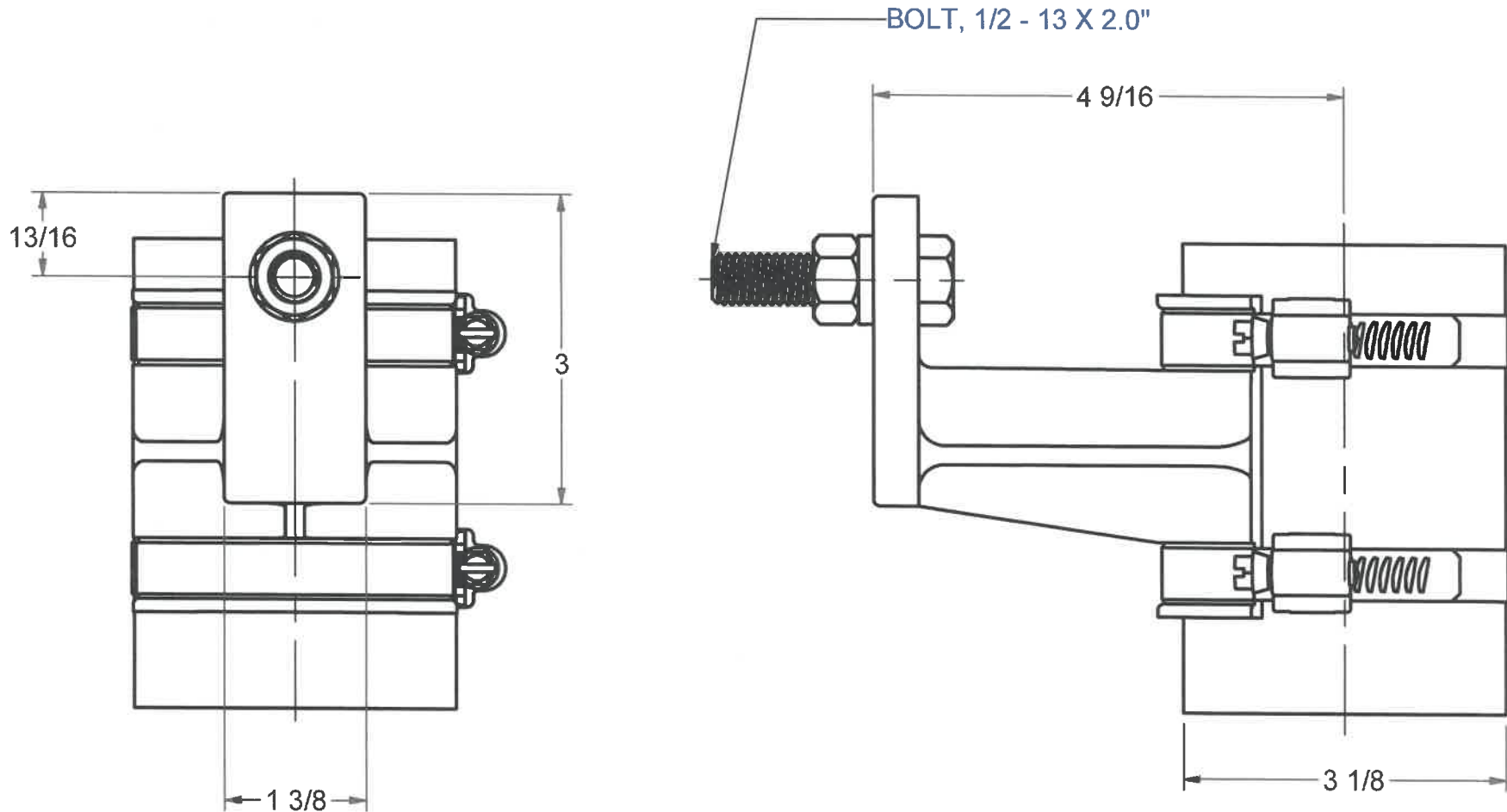



	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	tdonnelly	DATE	2/25/2004
		28035	CHECKED	AW	DATE	3/9/2004
ASSEMBLY, LINE 3 1/8" TRANSMISSION, EXPANSION TYPE		SIZE	SHEET	SALES DRAWING NO.		REVISION
		A	1 OF 1	301-007		B
		SCALE	COMPUTER FILE NAME			
		3/8	301-007.idw			

**FEATURES:**

- 1 5/8" BRONZE HANGER
- ALL STAINLESS STEEL LINE CLAMPS
- 1/2 -13 MOUNTING HARDWARE

**CATALOG #301-042-1**



	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	astichauner	DATE	12/10/2003
		28035	CHECKED	A.W	DATE	12/10/2003
VERTICAL FIXED HANGER, SINGLE LINE, FOR 3 1/8" RIGID COAX		SIZE	ENGINEER	A.W	DATE	12/10/2003
		A	SHEET	1 OF 1	SALES DRAWING NO.	301-042-1
		SCALE	NONE	COMPUTER FILE NAME	301-042-1.idw	B



**FEATURES:**

- ALL STAINLESS STEEL MOUNTING GUIDE.
- BRONZE LINE SADDLE.

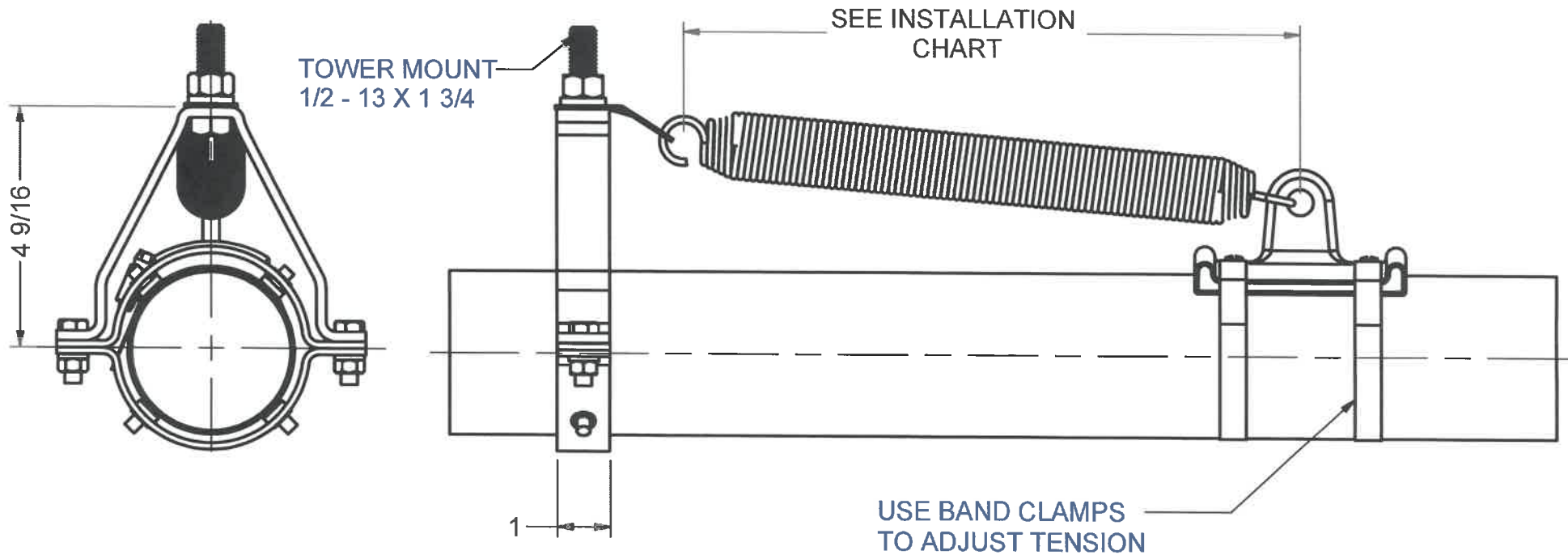
# CATALOG #301-042-3


**SUPPLIED WITH:**

- HEAVY DUTY BAND CLAMPS
- MOUNTING HARDWARE.

**USAGE:**

- USE ONE VERTICAL SUSPENSION HANGER FOR EACH 10 FEET OF TRANSMISSION LINE.
- THE INSTALLED SPRING SETTING IS A FUNCTION OF TEMPERATURE.
- USE THE VERTICAL SPRING SUSPENSION HANGER INSTALLATION CHART IN THE INSTALLATION MANUAL FOR PROPER SPRING SETTINGS



	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	astichauner	DATE	12/15/2003
		28035	CHECKED	A.W.	DATE	12/16/2003
VERTICAL SPRING SUSPENSION HANGER FOR 3 1/8" RIGID COAX SINGLE LINE		SIZE	ENGINEER	A.W.	DATE	12/16/2003
		A	SHEET	SALES DRAWING NO.		REVISION
		SCALE	301-042-3		A	
		NONE	COMPUTER FILE NAME			
			301-042-3.idw			

**FEATURES:**

- ALL STAINLESS STEEL CONSTRUCTION

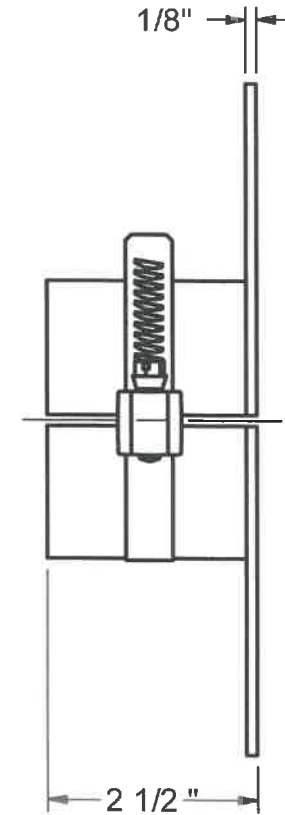
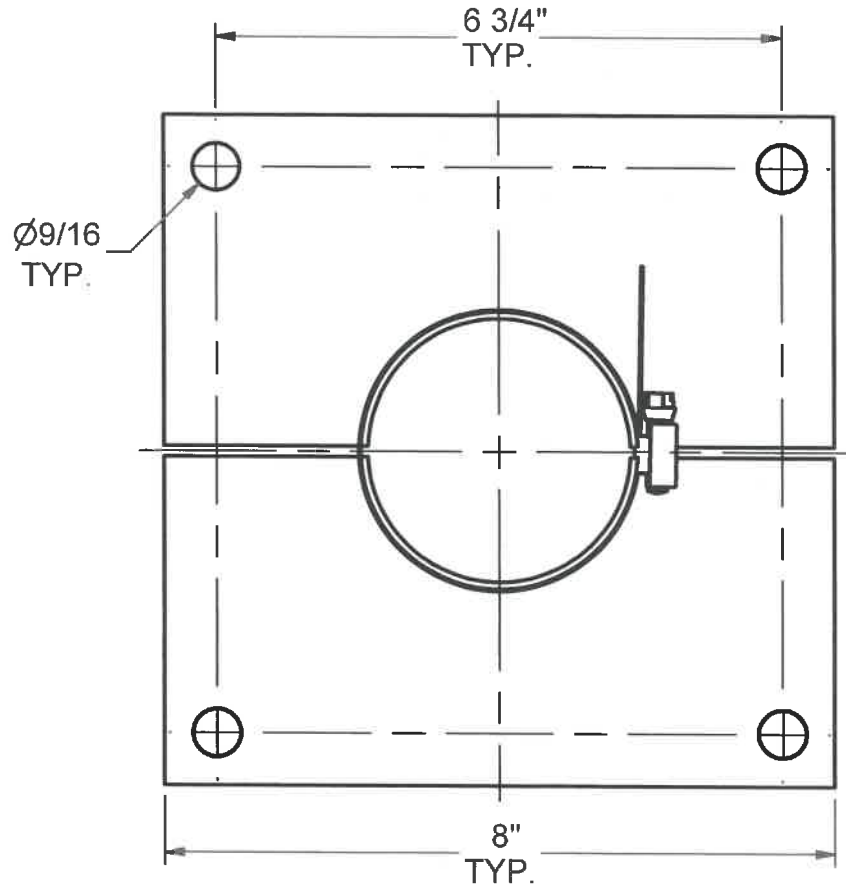
**CATALOG #301-042-5**


**SUPPLIED WITH:**

- STAINLESS STEEL HEAVY DUTY BAND CLAMPS

**USAGE:**

- USE ONE ANCHOR PLATE ON EACH SIDE OF THE TRANSMITTER BUILDING WALL TO ANCHOR THE HORIZONTAL TRANSMISSION LINE RUN.



	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	astichauner	DATE	12/10/2003
		28035	CHECKED	A.W	DATE	12/10/2003
WALL ANCHOR PLATE FOR 3 1/8" RIGID COAX LINE		SIZE	ENGINEER	A.W	DATE	12/10/2003
		A	SHEET	SALES DRAWING NO.		REVISION
		1 OF 1	301-042-5		B	
		SCALE	COMPUTER FILE NAME			
		NONE	301-042-5.idw			

# CATALOG # 301-042-17


1/2-13 UNC THREAD TYP.

SEE  
INSTALLATION  
CHART

2 31/64

7 TYP.

11 TYP. (UNLOADED)  
12 TYP. (LOADED)

	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	astichauner	DATE	2/27/2004
		28035	CHECKED	A.W.	DATE	3/2/2004
HORIZONTAL 3 POINT SPRING SUSPENSION HANGER FOR 3 1/8" RIGID COAX SINGLE LINE		SIZE	SHEET	SALES DRAWING NO.		REVISION
		A	1 OF 1	301-042-17		B
		SCALE	COMPUTER FILE NAME			
		NONE	301-042-17.idw			

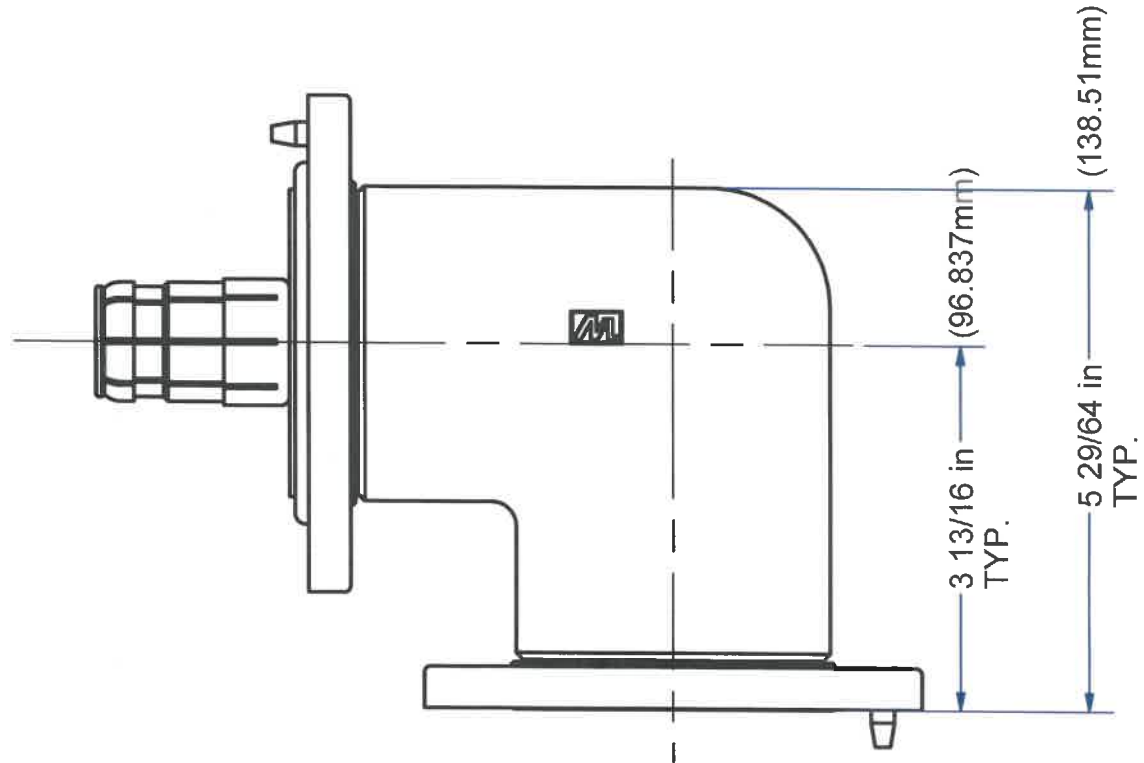
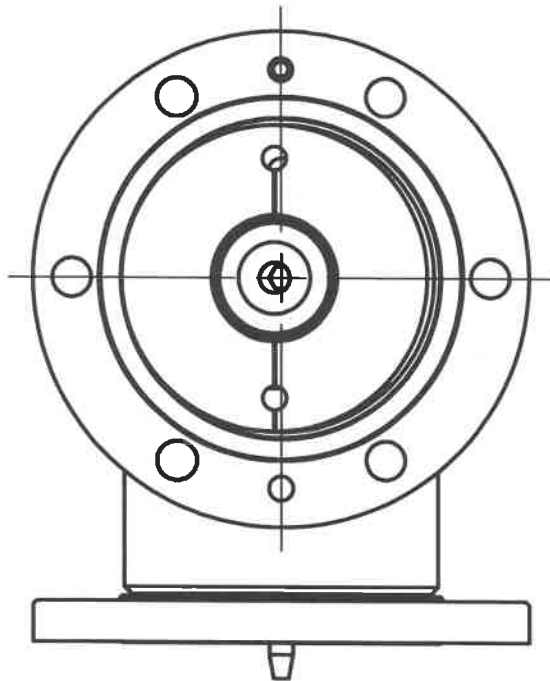
**FEATURES:**


- FORGED BRASS OUTER CONDUCTOR
- REINFORCED INSIDE, **SWIVEL FLANGES**
- SILVER PLATED BRASS INNER CONDUCTOR

**INCLUDES:**

- (1) ANCHOR INSULATOR CONNECTOR WITH ANTI-SPLIT DEVICE.
- (1) HARDWARE SET
- (1) O-RING

**CATALOG #301-021**



 <b>MYAT INC.</b> 360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO. <b>28035</b>	DRAWN <i>awhite</i>	DATE 6/17/2010
		CHECKED <i>S.J.K.</i>	DATE 6/17/2010
3 1/8" 50 OHM 90 DEG. FORGED ELBOW, CAPTIVE 3 13/16" LEG LENGTH	SIZE <b>A</b>	ENGINEER <i>A.W.</i>	DATE 6/17/2010
		SHEET 1 OF 1 1/2	
SCALE		SALES DRAWING NO.	

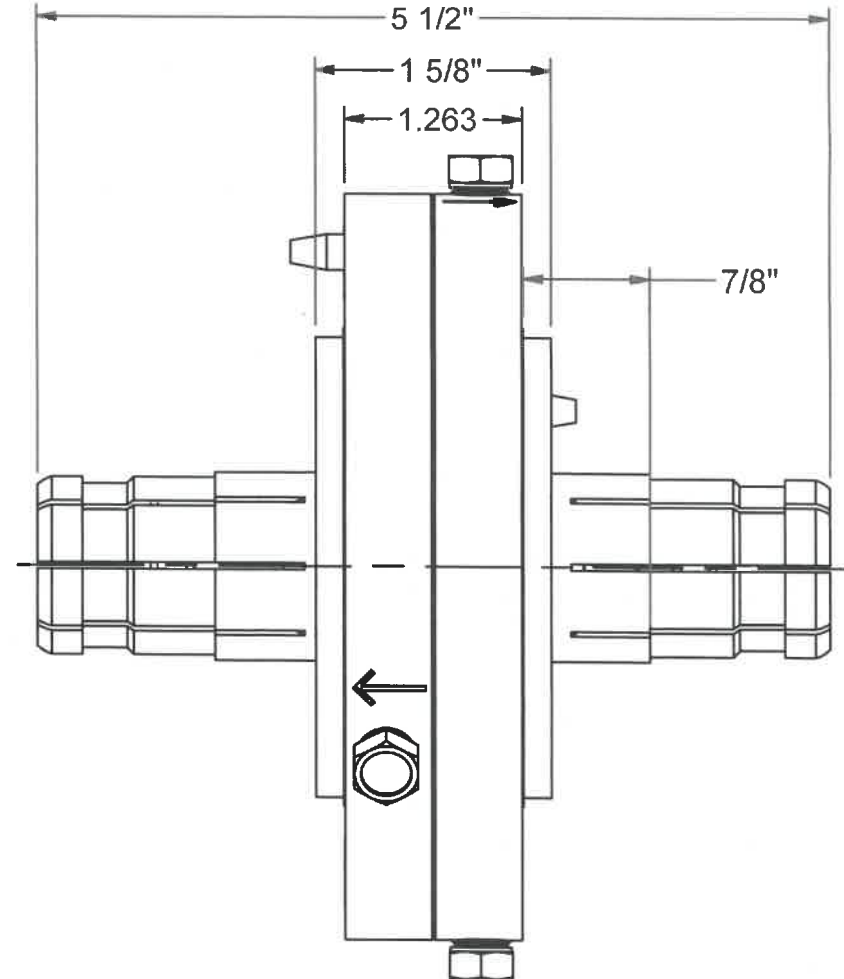
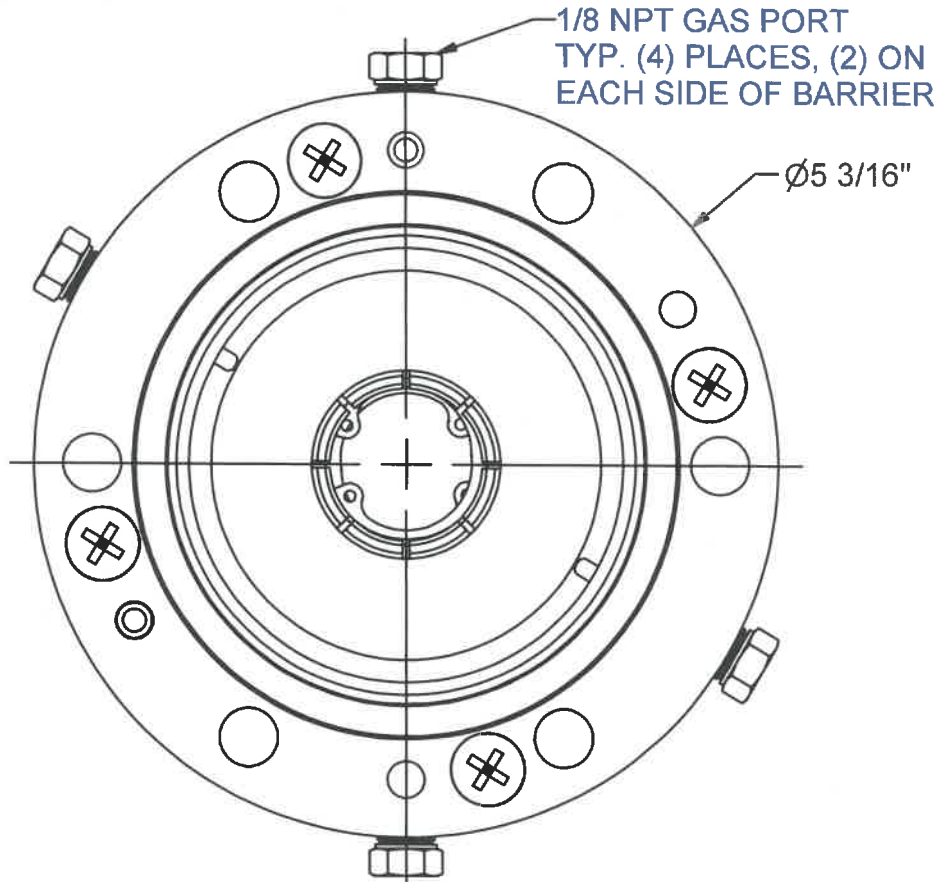
**FEATURES:**


- HEAVY DUTY GAS BARRIER BRASS FLANGES.
- BRASS CONNECTORS.
- PTFE INSULATORS.

**INCLUDES:**

- STAINLESS STEEL HARDWARE KIT
- "O" RING

**CATALOG # 301-050-HD**

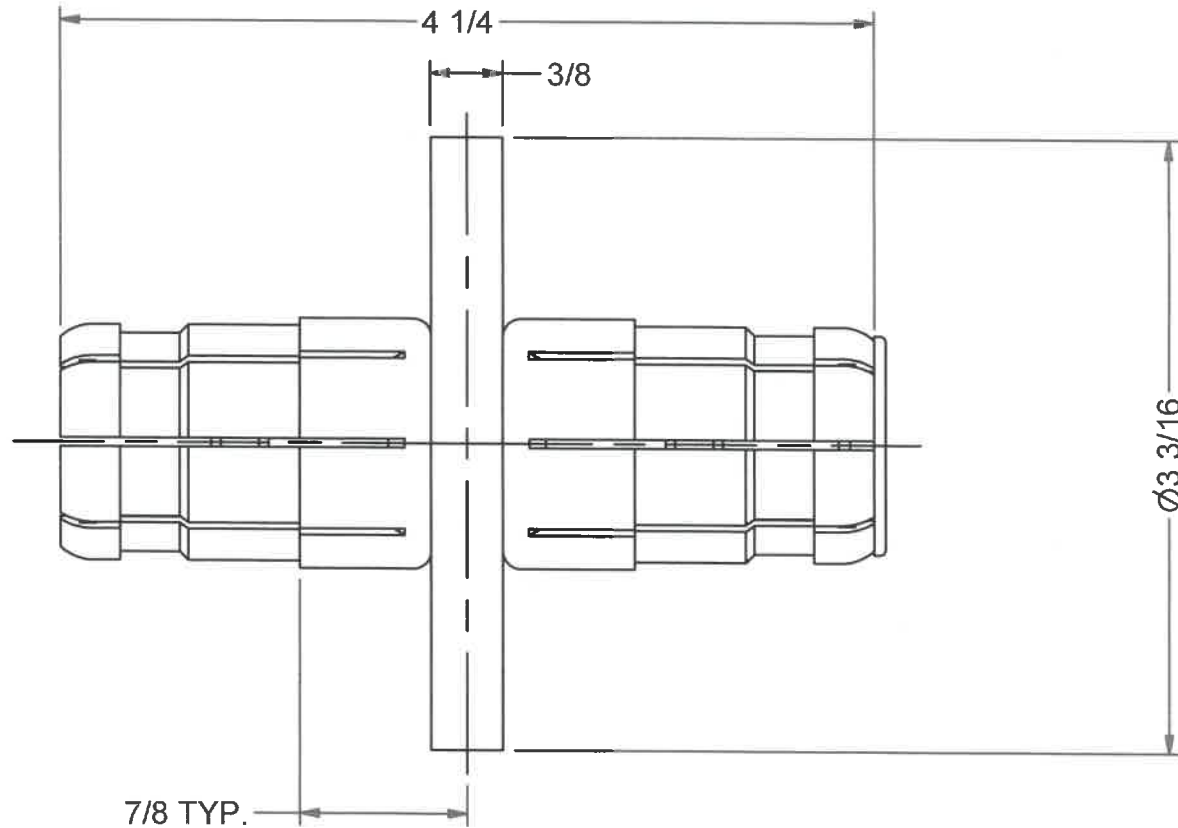



 <b>MAT INC.</b> 360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO. <b>28035</b>	DRAWN <b>G. RYAN</b> DATE <b>1/14/2004</b>	REVISION <b>1</b>
		CHECKED <b>A. WHITE</b> DATE <b>1/14/2004</b>	
<b>ASSEMBLY, GAS BARRIER, HEAVY DUTY, 3 1/8" 50 OHM</b>	SIZE <b>A</b>	ENGINEER <b>A. WHITE</b> DATE <b>1/14/2004</b>	SALES DRAWING NO. <b>301-050-HD</b>
		SHEET <b>1 OF 1</b>	
	SCALE <b>NONE</b>		

**FEATURES:**

- SILVER PLATED BRASS CONNECTOR
- ANTI-SPLIT DEVICE
- TEFLON INSULATOR
- CONFORMS TO 3 1/8 E.I.A. INTERFACE
- MATES WITH FLANGED 3 1/8" 50 OHM, E.I.A. TRANSMISSION LINE.

**CATALOG No. 301-010**

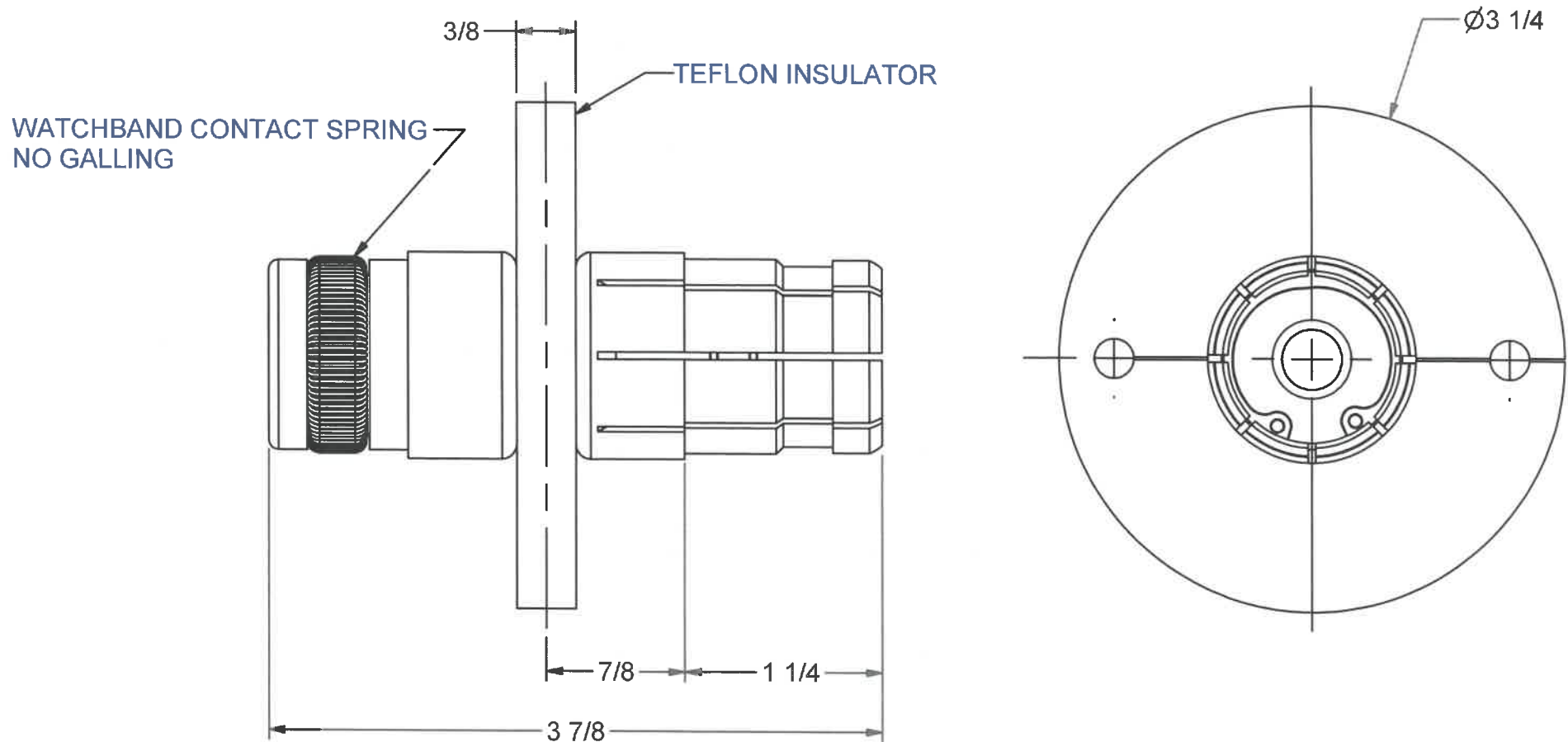



 <b>MAT INC</b> 360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO. <b>28035</b>	DRAWN <i>tdonnelly</i>	DATE 12/16/2003		
		CHECKED <i>AW</i>	DATE 12/17/2003		
<b>ASSEMBLY, CONNECTOR 3</b> <b>1/8" 50 OHM, E.I.A.</b>	SIZE <b>A</b>	ENGINEER <i>AW</i>	DATE 12/17/2003		
		SHEET <b>1 OF 1</b>		SALES DRAWING NO. <b>301-010</b>	REVISION <b>A</b>
		SCALE <b>FULL</b>			

**NOTE:**

- SILVER PLATED CONNECTOR
- WEIGHT 1.1b
- FOR USE WITH 301-007 FLANGED EXPANSION TYPE LINE.

# CATALOG # 301-010-E



 <b>MYAT INC.</b> 360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO. <b>28035</b>	DRAWN <u>astichauner</u> DATE <u>1/12/2004</u>		
		CHECKED <u>A.W.</u> DATE <u>1/13/2004</u>		
		ENGINEER <u>A.W.</u> DATE <u>1/13/2004</u>		
ANCHOR INSULATOR CONNECTOR, 3 1/8", 50 OHM, EXPANSION TYPE	SIZE <b>A</b>	SHEET 1 OF 1	SALES DRAWING NO. <b>301-010-E</b>	REVISION <b>B</b>
		SCALE 1:1	COMPUTER FILE NAME 301-010-E.idw	

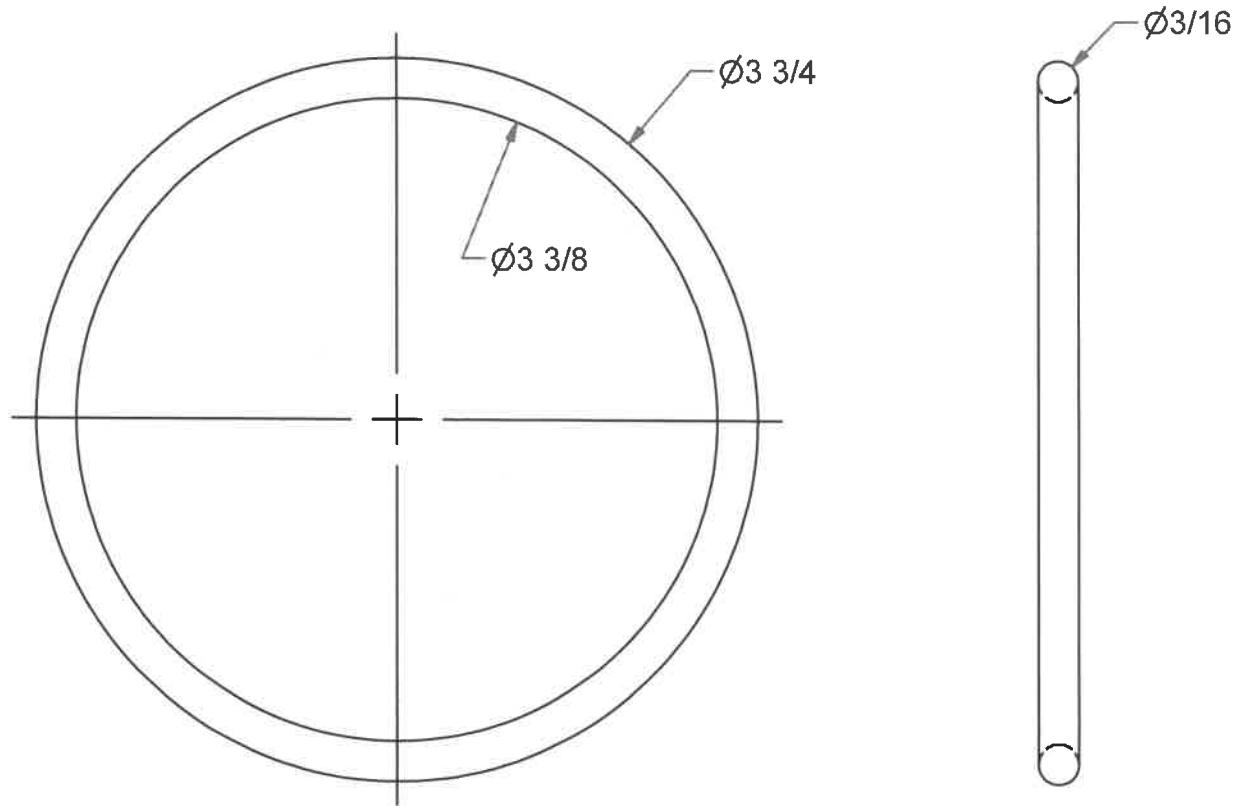
**FEATURES:**


-3 1/8" FLANGE O-RING FOR E.I.A.  
 FLANGE CONFORMING TO  
 3 1/8" E.I.A. TRANSMISSION  
 LINE COMPONENTS.

-DIMENSIONS SHOWN ARE NOMINAL,  
 ACTUAL DIMENSIONS CONFORM TO  
 AS-568A NUMBERING SYSTEM AND  
 P/N AS-568A-340 70SL

MATERIAL: SILICONE, 70 DUROMETER

**CATALOG No. 301-011**



 <b>MAT INC.</b> 360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO. <b>28035</b>	DRAWN	SKolvek	DATE	4/20/2020
		CHECKED	A.S.	DATE	4/20/2020
<b>O-RING, SILICONE 3 1/8"</b>	SIZE <b>A</b>	ENGINEER	S.J.K.	DATE	4/20/2020
		SHEET	1 OF 1	SALES DRAWING NO.	<b>301-011</b>
		SCALE	FULL	COMPUTER FILE NAME	301-011.idw
					REVISION <b>A</b>

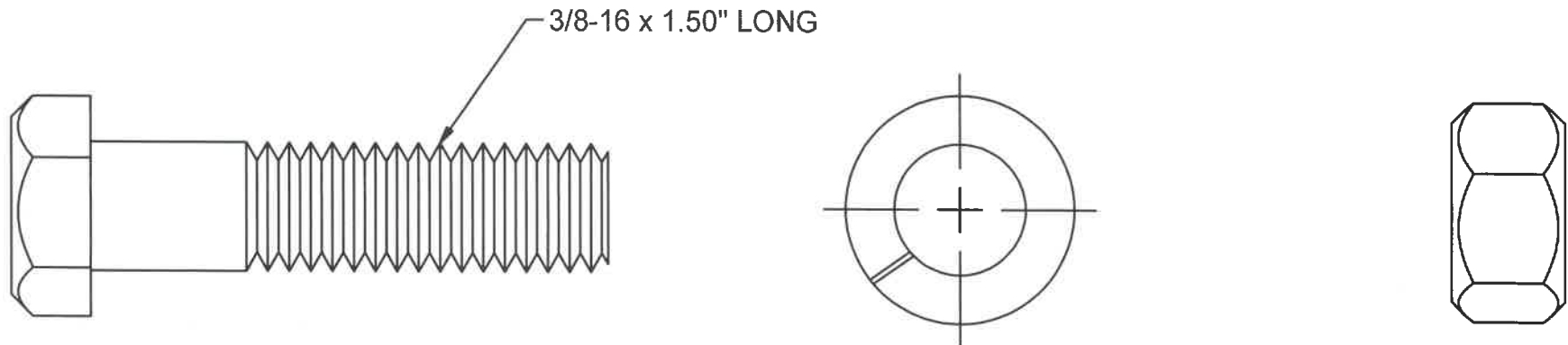


# CATALOG No. 301-012


## STAINLESS STEEL HARDWARE SET FOR 3 1/8" FLANGES

**KIT FEATURES:**

- (6) 3/8-16 X 1.5 HEX HEAD CAP SCREW
- (6) 3/8 LOCKWASHER
- (6) 3/8-16 HEX NUT
- ALL PARTS CORROSION RESISTANT STAINLESS STEEL
- HEX NUT COATED WITH AN MOLYBDENUM DISULFIDE



**6 PIECES PER SET**

	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	SKolvek	DATE	4/20/2020
		<b>28035</b>	CHECKED	J.T.S.	DATE	4/21/2020
<b>HARDWARE SET FOR 3 1/8" FLANGES</b>		SIZE	SALES DRAWING NO.		<b>301-012</b>	
		<b>A</b>	SHEET	1 OF 1		
			SCALE	2/1	COMPUTER FILE NAME	301-012.idw

**FEATURES:**

- 3 1/8" 50 OHM, E.I.A. TRANSMISSION LINE
- MAXIMUM SPECIFIED LINE LENGTH = 20 FEET
- MINIMUM SPECIFIED LINE LENGTH = 5 INCHES
- ROHS MATERIAL COMPLIANT

**SUPPLIED WITH:**

- O-RING
- HARDWARE KIT

# CATALOG No. 301-002 (20')

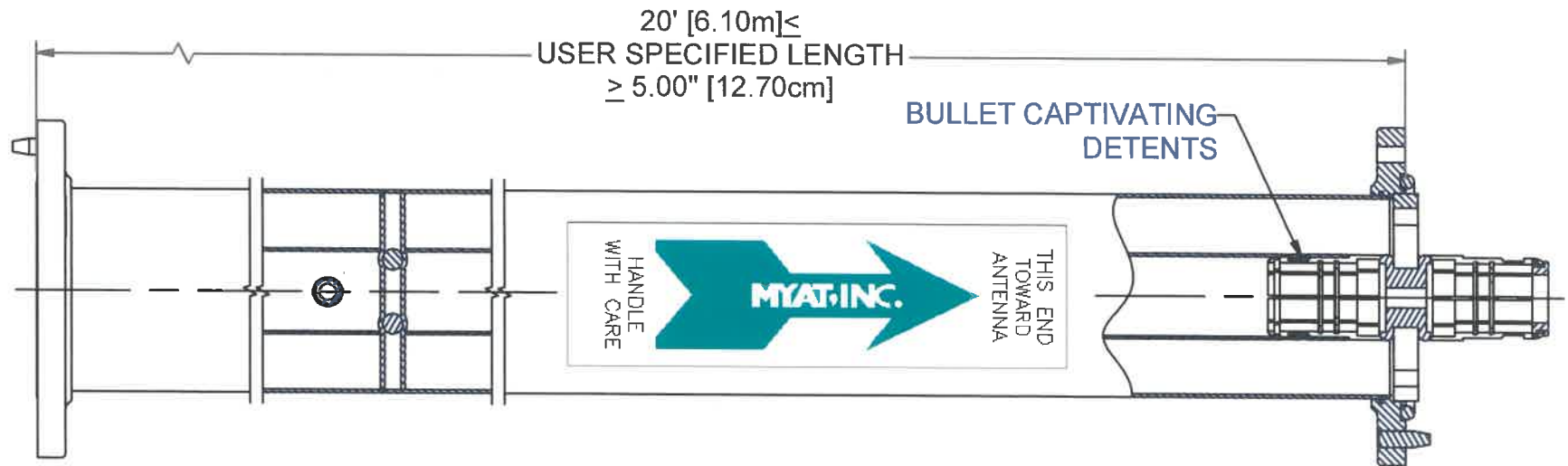
## CATALOG No. 301-002-000


**AT TIME OF ORDER:**

- SUFFIX -000 IS REPLACED BY THE SPECIFIED LINE LENGTH IN INCHES WITH A "-XXX.XXX" FORMAT

**EXAMPLES:**

- LENGTH 10' 5/8" IS CATALOG # 301-002-120.625
- LENGTH 7 7/8" IS CATALOG # 301-002-7.875

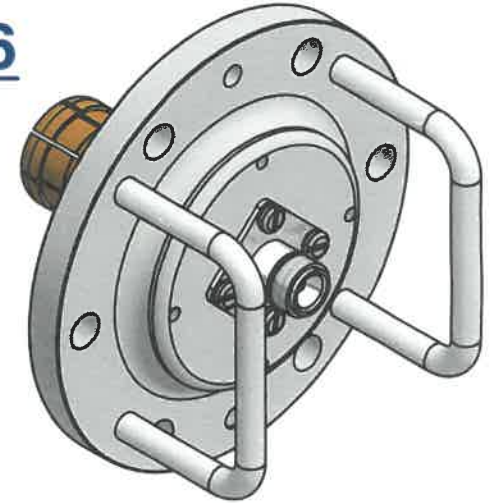


	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	tdonnelly	DATE	3/2/2004
		28035	CHECKED	AW	DATE	3/9/2004
<b>RIGID TRANSMISSION                  LINE 3 1/8", 50 OHM, E.I.A.</b>		SIZE <b>A</b>	SHEET	1	OF	1
			SCALE	3/8	SALES DRAWING NO.	301-002
			COMPUTER FILE NAME	301-002.idw		

**FEATURES:**

- LIGHT WEIGHT ALUMINUM FLANGE
- SILVER PLATED BRASS 3 1/8" CONNECTOR
- SILVER PLATED BRASS INNER CONDUCTOR
- TYPE "N" FEMALE (JACK) CONNECTOR
- 3 1/8" 50 OHM E.I.A. INTERFACE
- UNPRESSURIZED DESIGN

**CATALOG No. 311-066**

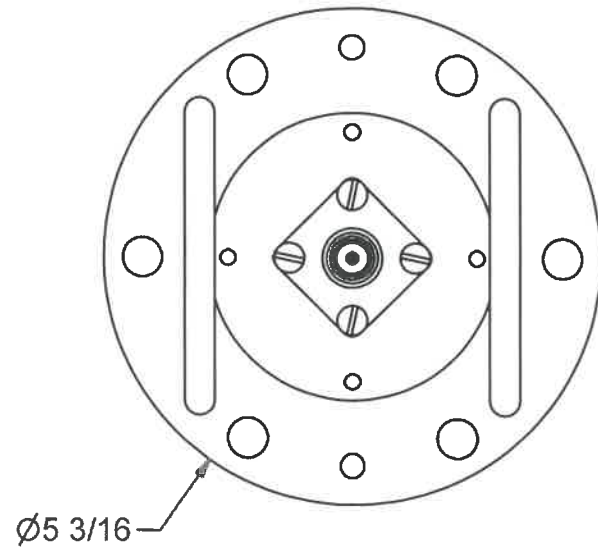
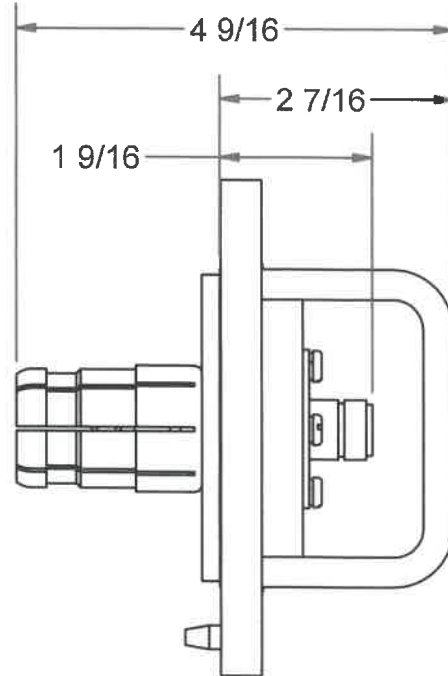



**SUPPLIED WITH:**

- HARDWARE FOR 3 1/8" FLANGE

**SPECIFICATIONS:**

- VSWR  $\leq$  1.04:1  
50-806MHz
- MAX AVERAGE POWER  
1000W



	360 FRANKLIN TPK. MAHWAH, N.J.	CAGE IDENT NO.	DRAWN	awhite	DATE	3/9/2010
		28035	CHECKED	S.J.K.	DATE	3/10/2010
<b>STEP REDUCER, 3 1/8", 50 OHM TO TYPE "N"</b>		SIZE	SALES DRAWING NO.		REVISION	
		A	311-066		A	
SHEET 1 OF 1 SCALE 1/2		COMPUTER FILE NAME 311-066.idw				



Rep:  
Mike T Moreno

mmoreno@scmsinc.com  
(800) 438-6040

# Quote

Date	Quote #
7/7/2020	QT20519

Bill To	Ship To
AP NEEDS 3 COPIES OF INVOICE WV PUBLIC BROADCASTING 124 INDUSTRIAL PARK ROAD BEAVER WV 25813 United States	SITE MANAGER EDUCATIONAL BROADCASTING WSWP-... 124 INDUSTRIAL PARK ROAD BEAVER WV 25813 United States

**Corporate Office**

**Remit to:**

SCMS, Inc.  
 SCMS Inc  
 10201 Rodney St  
 Pineville NC 28134-7540

Phone 800-438-6040  
 fax  
 sales@scmsinc.com

Sales Rep	PO #	Ship Via	Terms
Mike T Moreno	TBD	Bestway - Ground	Net 30

Line	Qty	Item	Description	MSRP	Unit ...	Ext.
1	1	Alive Telecommunications ATC-BCE040-V0-8	High Power VHF Transmit Antenna, CH8	126,000.00	105,000.00	105,000.00
2	23	Myat 301-007-240	TRANS. LINE ASSY. 3 1/8 EXPANSION 240" WSWP CH 8 DTV VERTICAL RUN: 400 FT. HORIZONTAL RUN: 50 FT. (450 FT TOTAL PER CUSTOMER) 3 1/8 COAX LINE LINE LOSS: 0.125dB/100 FT. AVERAGE POWER: 39.003 kW BILL OF MATERIALS BASED ON DETAILS SUBMITTED BY CUSTOMER.	1,200.00	989.01	22,747.23
3	2	Myat 301-042-1	Hanger, Fixed, Single (catalog pg. 47)	100.00	82.42	164.84
4	38	Myat 301-042-3	Hanger, Vertical Spring, Single (catalog pg. 47)	145.00	119.51	4,541.38
5	1	Myat 301-021	90 degree Elbow Flanged, Reinforced Inside and Outside (catalog pg. 37)	590.00	486.26	486.26
6	1	Myat 301-042-8	Lateral Brace (catalog pg. 48)	198.00	163.19	163.19
7	5	Myat 301-042-17	Hanger, 3 Point Suspension, Single (catalog pg. 49)	250.00	206.04	1,030.20
8	2	Myat 301-042-5	Anchor Plate (catalog pg. 48)	240.00	197.80	395.60
9	1	Myat 301-050-HD	Gas Barrier Heavy Duty (catalog pg. 40)	675.00	556.32	556.32
10	4	Myat 301-002-120	DUAL SIDED TRANS LINE ASSY. 3 1/8 FLANGED 120" ABOVE LINES TO BE USED FOR FIELD DETERMINED LINES	810.00	667.58	2,670.32
11	4	Myat 301-021	90 degree Elbow Flanged, Reinforced Inside and Outside (catalog pg. 37)	590.00	486.26	1,945.04

# Quote

Date	Quote #
7/7/2020	QT20519

Line	Qty	Item	Description	MSRP	Unit ...	Ext.
12	1	Myat 301-010	Anchor Insulator Connector (catalog pg. 35)	82.00	67.58	67.58
13	1	Myat 301-010-E	Anchor Connector, Exp. Type (Used with 301-007) (catalog pg. 36)	98.00	80.77	80.77
14	5	Myat 301-011	"O" Ring - Silicone (catalog pg. 36)	3.50	2.89	14.45
15	5	Myat 301-012	Hardware Set (catalog pg. 36)	12.00	9.89	49.45
16	1	Myat 311-066	Reducer, Plate Type to "N" Female (catalog pg. 41)	470.00	387.36	387.36
				Subtotal		140,299.99
				Shipping Cost (Bestway - Ground)		2,850.00
				Total		\$143,149.99

\*\*\*ANY SHIPPING AMOUNT SHOWN IS AN ESTIMATE OF ACTUAL FREIGHT COST TO BE BILLED\*\*\*

All delivered Shipments are the responsibility of the purchaser. If a signature for proof of delivery is required, please specify.

TERMS & CONDITIONS: Quote is valid for 30 days with the exception of price increases from the manufacturer. All prices are FOB Origin. Taxes, e-procurement fees, and freight are not included. Package Sale Price is for payment within terms only, otherwise list price shown will be due. Net 30 Days terms are subject to credit approval. Required deposits and progress payment percentages are shown above. Partial invoicing for partial shipments will be allowed. All items remain the property of SCMS until paid for in full with all legal expenses required for collection paid by purchaser. Any stated deliveries are subject to SCMS stock availability and/or manufacturer's stock and production schedules at time of order. All used equipment is on a "first come, first served" basis. All returned products and cancellations require prior written approval and are subject to a restocking fee. All credit card and Paypal purchases are subject to a surcharge. Only manufacturer warranties are applicable.

Accepted by

Signature

Date





Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Request for Quotation  
 13 - Equipment

Proc Folder: 739235

Doc Description: HIGH POWER VHF TV TRANSMIT ANTENNA

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-06-26	2020-07-14 13:30:00	CRFQ 0439 EBA2000000029	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Name, Address and Telephone Number:

*SCMS INC.*  
*10201 RODNEY ST.*  
*PINEVILLE, NC 28120*  
*1-800-438-6040*

**FOR INFORMATION CONTACT THE BUYER**

Dusty J Smith  
 (304) 558-2063  
 dusty.j.smith@wv.gov

Signature X *[Handwritten Signature]* FEIN # *56-1170404* DATE *7/8/2020*

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION:**

ONE TIME  
 THE STATE OF WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, EDUCATIONAL BROADCASTING AUTHORITY, IS SOLICITING BIDS FOR THE ONE-TIME PURCHASE OF HIGH POWER VHF TV TRANSMIT ANTENNA PER THE ATTACHED DOCUMENTS.

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO DUSTY.J.SMITH@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS.

\*\*\*\*PLEASE NOTE MAKE SURE YOU DOWNLOAD BOTH OF THE SOLICITATIONS \*\*\*\*

INVOICE TO		SHIP TO	
CHIEF FINANCIAL OFFICER EDUCATIONAL BROADCASTING 124 INDUSTRIAL PARK RD		SITE MANAGER EDUCATIONAL BROADCASTING WSWP-TV 124 INDUSTRIAL PARK RD	
BEAVER	WV25813	BEAVER	WV 25813
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	HIGH POWER VHF TV TRANSMIT ANTENNA	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43221703			

**Extended Description :**

HIGH POWER VHF TV TRANSMIT ANTENNA

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	TECHNICAL QUESTIONS DUE AT 10AM	2020-07-06



<b>EBA200000029</b>	<b>Document Phase</b> Final	<b>Document Description</b> HIGH POWER VHF TV TRANSMIT ANTENNA	<b>Page 3</b> <b>of 3</b>
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**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions