

CERTIFIED COPY OF ORDER

STATE OF MISSOURI }
County of Boone } ea.

April Session of the April Adjourned

Term. 20 15

In the County Commission of said county, on the 28th day of April 20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby **deny** the request by Darren and Katie Nickerson to rezone from A-1 (Agriculture) to A-2 (Agriculture) on 10.73 acres, more or less, located at 7400 S Warren School Rd., Columbia.

Done this 28th day of April, 2015.

ATTEST:

Wendy S. Noren
Wendy S. Noren
Clerk of the County Commission



Daniel K. Atwill
Presiding Commissioner



Karen M. Miller
District I Commissioner



Janet M. Thompson
District II Commissioner

Nickerson rezoning – A-1 to A-2

This request was considered by the Planning & Zoning Commission during their April 16, 2015 meeting.

The minutes for the Planning and Zoning Commission meeting of April 16, 2015 are entered into the record of this meeting.

The subject property is located on Warren School Road, south of State Route K, approximately ½ mile to the east of the city limits of the City of Columbia. The subject property is 10.73 acres in size, and zoned A-1 (Agriculture). The property currently has a single-family house, a shed, and a barn present. The property is surrounded by A-1 (Agriculture) zoning. This is all original 1973 zoning. The property scored 55 points on the rating system.

The proposed zoning change is to facilitate further subdivision of the property for purposes of building a new house.

The Boone County Master Plan has designated this area as being suitable for residential land uses. The Boone County Master Plan designates a sufficiency of resources test for the evaluation of zoning changes where each proposal is evaluated to see if sufficient utility, transportation, and public safety infrastructure is in place to support the change in zoning. The sufficiency of resources test provides a “gate keeping” function. Failure to pass the test should result in denial of a request. Success in passing the test should result in further analysis.

Utilities: Boone Electric can provide electrical service to this property. Consolidated Public Water Service District #1 can provide water service to this property. Wastewater will be an on-site system permitted by the Columbia/Boone County Health Department.

Transportation: The property has direct access on to Warren School Road, a publicly-dedicated, publicly-maintained right-of-way.

Public Safety: The property is located in the Boone County Fire Protection District. The nearest fire station is about 4 miles from the subject tract.

Zoning Analysis: The overall character of this area has long been rural in nature, with larger (10+ acre) tracts being the norm. The lack of development in this part of the county shows that interest has been in maintaining that rural character for the longer term. Without any new pressure for development in this area, the preservation of the existing character of the area is paramount.

Staff recommended **denial** of the request.

The Planning & Zoning Commission conducted a public hearing on this request during their April 16, 2015 regular meeting. There were six members of the commission present during the meeting.

Following the public hearing, a motion was made to recommend denial of the rezoning request. The motion to deny the request received a unanimous vote. The applicants filed a timely appeal so it is before the County Commission on appeal.

Are there any questions about the staff report?

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In the County Commission of said county, on the

28th

day of

April

20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby release Letter of Credit #0009387-0099 from Boone County National Bank in the amount of \$105,541.22. Said letter was issued on behalf of JES Investment Co. for stormwater improvements located along Hwy 163, in Columbia, MO. The work has been completed as required. The original Commission Order accepting the Letter of Credit is 258-2014.

It is further ordered the Presiding Commission is hereby authorized to sign said Letter of Credit.

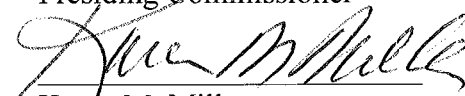
Done this 28th day of April, 2015.

ATTEST:

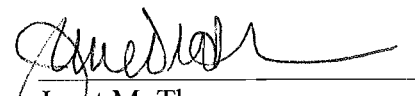
Wendy S. Noren
Wendy S. Noren
Clerk of the County Commission



Daniel K. Atwill
Presiding Commissioner



Karen M. Miller
District I Commissioner



Janet M. Thompson
District II Commissioner



Boone County Resource Management

ROGER B. WILSON BOONE COUNTY GOVERNMENT CENTER
801 E. WALNUT ROOM 315 COLUMBIA, MO 65201-7730
(573) 886-4330 FAX (573) 886-4340

STAN SHAWVER, DIRECTOR

PLANNING – INSPECTIONS – ENGINEERING

DERIN CAMPBELL, CHIEF ENGINEER

April 21, 2015

Boone County National Bank
P.O.Box 678
Columbia, MO 65205
Attention: Dawn Shellabarger, Asst. VP

Re: Bank Letter of Credit No.: 0009387-0099
Dated: May 16, 2014
In Favor of Boone County, Missouri on behalf of Jeffery E. Smith Investment Company

Ladies and Gentlemen:

This certificate authorizes reduction in the amount of \$105,541.22 of the above letter of credit. The remaining maximum available credit for this letter of credit is \$0.00.

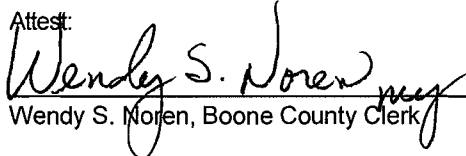
BOONE COUNTY, MISSOURI

By: 
Derin Campbell
Presiding Commissioner

APPROVED BY:


Stan Shawver, Director, Resource Management

Attest:


Wendy S. Noren, Boone County Clerk

Commission Order: _

CERTIFIED COPY OF ORDER

STATE OF MISSOURI

April Session of the April Adjourned

Term. 20 15

County of Boone

} ea.

In the County Commission of said county, on the

28th

day of

April

20

15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby approve the attached Contract Amendment Number Four to 22-24JUN11, Urban Retrofit Monitoring of Stormwater Practices in Hinkson Creek Watershed.

The terms of this amendment are stipulated in the attached Contract Amendment. It is further ordered the Presiding Commissioner is hereby authorized to sign said Contract Amendment Number Four for Urban Retrofit Monitoring of Stormwater Practices in Hinkson Creek Watershed.

Done this 28th day of April, 2015.

ATTEST:

Wendy S. Noren
Wendy S. Noren
Clerk of the County Commission

Daniel K. Atwill
Daniel K. Atwill

Presiding Commissioner

Karen M. Miller
Karen M. Miller

District I Commissioner

Janet M. Thompson
Janet M. Thompson

District II Commissioner

Boone County Purchasing

Melinda Bobbitt, CPPO
Director of Purchasing



613 E. Ash St., Room 110
Columbia, MO 65201
Phone: (573) 886-4391
Fax: (573) 886-4390

MEMORANDUM

TO: Boone County Commission
FROM: Melinda Bobbitt, CPPB, CPPO
DATE: September 2, 2014
RE: Amendment Number Four – 22-24JUN11 – *Urban Retrofit Monitoring of Stormwater Practices in Hinkson Creek Watershed*

Contract 22-24JUN11 – *Urban Retrofit Monitoring of Stormwater Practices in Hinkson Creek Watershed* was approved by commission for award to Geosyntec Consultants on December 6, 2011, commission order 498-2011. This amendment clarifies the pricing outlined on Attachment A. Our original amendment had a “not to exceed” total of \$47,953 for tasks 1-4 and the correct amount is a “not to exceed” \$55,606.

Invoices will be paid from department 2140 – DNR 319 Urban Retrofit Grant , account 71100 – Outside Services. \$8,078.34 remains in the account at this time so a Budget Revision is not needed.

cc: Paula Evans, Resource Management
Contract File

**CONTRACT AMENDMENT NUMBER FOUR
PURCHASE AGREEMENT FOR
URBAN RETROFIT MONITORING OF STORMWATER PRACTICES IN HINKSON CREEK WATERSHED**

The Agreement **22-24JUN11** dated December 6, 2011 made by and between Boone County, Missouri and **Geosyntec Consultants** for and in consideration of the performance of the respective obligations of the parties set forth herein, is amended as follows:

1. Clarify Amendment #2 pricing:

Total Compensation for Tasks 1-5 not to exceed \$84,588.00

Total Compensations for Optional Tasks 1 through 4 not to exceed \$55,606.

2. Except as specifically amended hereunder, all other terms, conditions and provisions of the original agreement and subsequent Amendments shall remain in full force and effect.

IN WITNESS WHEREOF the parties through their duly authorized representatives have executed this agreement on the day and year first above written.

GEOSYNTEC CONSULTANTS

by *Susan K. Hill*
title *Vice President*

BOONE COUNTY, MISSOURI

by: Boone County Commission
Daniel K. Atwill
Daniel K. Atwill, Presiding Commissioner

APPROVED AS TO FORM:

C.J. Dykhouse
C.J. Dykhouse, County Counselor

ATTEST:

Wendy S. Noren
Wendy S. Noren, County Clerk

AUDITOR CERTIFICATION

In accordance with RSMo 50.660, I hereby certify that a sufficient unencumbered appropriation balance exists and is available to satisfy the obligation(s) arising from this contract. (Note: Certification of this contract is not required if the terms of this contract do not create a measurable county obligation at this time.)

Jane E. Pitchford
Signature *by aj*

4/21/15
Date

2140 / 71100 - \$140,194

Appropriation Account

Commission Order: 103-2014

**CONTRACT AMENDMENT NUMBER TWO
PURCHASE AGREEMENT FOR
URBAN RETROFIT MONITORING OF STORMWATER PRACTICES IN HINKSON CREEK WATERSHED**

The Agreement 22-24JUN11 dated December 6, 2011 made by and between Boone County, Missouri and **Geosyntec Consultants** for and in consideration of the performance of the respective obligations of the parties set forth herein, is amended as follows:

1. Renew contract through February 28, 2015.

2. Scope of Services Modifications:

Project Overview- Revised to reflect the reduced number of stormwater Best Management Practices (BMPs) that will be monitored at the industrial site (3 reduced to 2).

Task 1- Language adjusted to reflect the modification of Geosyntec's role from primary to secondary assistance with quality assurance project plan revisions.

Task 2- Sample collections at residential site removed. Reduced number of BMPs monitored at industrial site (3 reduced to 2) and added equipment blanks to quality assurance requirements.

Task 3- No changes made.

Task 4- Reduced number of quality assurance field audits and field sheet reviews to reflect reduced monitoring effort.

Task 5- Number of reports Geosyntec will produce reduced from two to one final summary report.

Total Compensation for Tasks 1-5 not to exceed \$84,588.00

The County may utilize Optional Tasks 1-4, total compensation not to exceed \$47,953.

Optional Task 1- Original Optional Task 1 covering the stormwater modeling workshop was deleted. Optional Task 1 now covers former Optional Task 2's scope which has been modified to include installation and operation training for residential monitoring in replacement of the original industrial monitoring.

Optional Task 2- Formally Optional Task 3; site location modified from industrial to residential and data requirements specified for stormwater modeling.

Optional Task 3- Formally Optional Task 4; no other changes made.

Optional Task 4- Added to include sampler rental.

Optional Task 5- Deleted.

Project Compensation- Revised to reflect updated not-to-exceed cost estimates for Tasks 1-5.

Project Period of Performance- Revised with updated grant project end dates in accordance with extension granted by Missouri Department of Natural Resources.

* **Attachment A-** Revised cost estimate table reflecting updated rates and tasks.

Attachment B- No changes made.

If Optional Tasks 1-4 are not utilized, there will be no additional cost to the County.

3. Except as specifically amended hereunder, all other terms, conditions and provisions of the original agreement and Amendment Number One shall remain in full force and effect.

Commission Order: 103-2014

IN WITNESS WHEREOF the parties through their duly authorized representatives have executed this agreement on the day and year first above written.

GEOSYNTEC CONSULTANTS

by Susan K. Hill
title Vice President

BOONE COUNTY, MISSOURI

by: Boone County Commission
Daniel K. Atwell
Daniel K. Atwell, Presiding Commissioner

APPROVED AS TO FORM:

C.J. Dykhouse
C.J. Dykhouse, County Counselor

ATTEST:

Wendy S. Noren
Wendy S. Noren, County Clerk

AUDITOR CERTIFICATION

In accordance with RSMo 50.660, I hereby certify that a sufficient unencumbered appropriation balance exists and is available to satisfy the obligation(s) arising from this contract. (Note: Certification of this contract is not required if the terms of this contract do not create a measurable county obligation at this time.)

<u>Jane E. Pitchford</u>	<u>3/5/14</u>	<u>2140/71100 - \$132,541.00</u>
Signature <i>by off</i>	Date	Appropriation Account

Attachment A

**Cost Estimate for 2014 Hinkson Creek BMP Investigation Support
Boone County, Missouri
Urban Retrofit Monitoring of Stormwater Practices in Hinkson Creek Watershed**

Professional Costs:	Rate (\$/unit)	Unit	Number of Units per each Scope of Work								Total Units	Total Cost		
			Task 1	Task 2	Task 3	Task 4	Task 5	Optional Task 1	Optional Task 2	Optional Task 3			Optional Task 4	
Principal	225	hour					4					6	\$1,350	
QA/H&S Officer	187	hour		2	4	4	5		1	6		22	\$4,114	
Supervising Engineer	187	hour								65	3	68	\$12,716	
Managing Hydrologist	167	hour	12	8	20	10	50		6	35	11	152	\$25,384	
Database & Model Manager	144	hour	8	30	100	48	80		40	120	18	444	\$63,936	
Hydrologic Specialist	125	hour			80	8	16		12	16	4	136	\$17,000	
Staff Scientist	107	hour												
Project Assistant	61	hour				3	5			10	1	19	\$1,159	
Subtotal			\$3,156	\$6,030	\$28,488	\$10,513	\$24,010		\$8,449	\$39,012	\$6,001	\$0	847	\$125,659
Non-Professional Direct Costs:														
Per Diem	46	day				6			2			8	\$368	
Mileage	0.60	mile				300			80			380	\$228	
Printing	Direct													
Monitoring Equipment	167	month										12	\$2,004	
Laboratory WQ Analysis	\$239	Paired Samples		50								50	\$11,935	
Subtotal			\$0	\$11,935	\$0	\$456	\$0		\$140	\$0	\$0	\$2,004	\$450	\$14,535
Total			\$3,156	\$17,965	\$28,488	\$10,969	\$24,010		\$8,589	\$39,012	\$6,001	\$2,004	\$140,194	\$140,194

84,588
+ 55,606
= 140,194

\$84,588

\$55,606
optional tasks

55,606
- 47,953
= 7,653

Per Contract: optional tasks 1-4 not to exceed \$47,953.
Should have been \$55,606

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STATE OF MISSOURI

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April Session of the April Adjourned

Term. 20 15

County of Boone

In the County Commission of said county, on the

28th

day of April

20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby award bid 14-24MAR15 – Radio Tower Design, Engineering and Fabrication to Sabre Industries.

The terms of the bid award are stipulated in the attached Purchase Agreement. It is further ordered the Presiding Commissioner is hereby authorized to sign said Purchase Agreement for Radio, Design, Engineering and Fabrication.

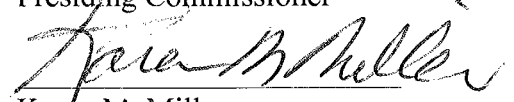
Done this 28th day of April, 2015.

ATTEST:

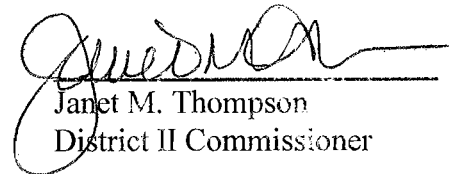
Wendy S. Noren
 Wendy S. Noren
 Clerk of the County Commission



Daniel K. Atwill
 Presiding Commissioner



Karen M. Miller
 District I Commissioner



Janet M. Thompson
 District II Commissioner

Boone County Purchasing

Elizabeth Sanders, CPPB
Senior Buyer



613 E. Ash Street, Room 111
Columbia, MO 65201
Phone: (573) 886-4393
Fax: (573) 886-4390

MEMORANDUM

TO: Boone County Commission
FROM: Elizabeth Sanders, Senior Buyer
DATE: April 20, 2015
RE: 14-24MAR15 – Radio Tower Design, Engineering, and Fabrication

RFB 14-24MAR15 for Radio Tower-Design, Engineering and Fabrication opened on April 3, 2015. Seven bids were received and evaluations made by Purchasing and the County's radio consultant. Of the seven bids received, Sabre Industries provides the lowest cost for meeting the bid's specifications and requirements.

Award will consist of one Class III radio tower structure, 175 feet in height, with top mounted platform for the County's new emergency communication center, materials only, erection at tower site to be done by others.

Total cost of purchase is \$53,663.00 and will be paid from Dept 4101-ECC Facility Construction Project, Account 71201- Construction Costs. Budget is \$55,000.00

Attached is the bid tabulation with review and recommendation for your information.

cc: Bid File

RFB 14-24MAR15 - RADIO TOWER DESIGN, ENGINEERING AND FABRICATION
 BID CLOSING: APRIL 3, 2015 AT 2:00 PM

SECTION 4.00 - PRICING		Tower Innovations	Allstate Tower	Western Towers	Advanced Towers	Sabre Industries	Nello Corporation	Chouteau Fabrication
Item #	DESCRIPTION	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum
4.01	Radio tower- designed, engineered, and fabricated per bid specifications	\$59,105.00	\$47,280.00	\$54,472.00	\$82,960.00	\$53,663.00	\$51,500.00	\$84,950.00
4.02	Delivery of all items specified in bid— days ARO:	6 weeks ARO	9-11 weeks ARO	6 weeks approx	8 weeks	4-6 weeks	3-6 weeks	6 weeks

No Bids:
 Office Resource1

Liz Sanders - Review of Tower Bids

From: "Dave Dunford" <ddunford@kc.rr.com>
To: <lsanders@boonecountymo.org>
Date: 4/7/2015 8:39 AM
Subject: Review of Tower Bids
CC: <MBobbitt@boonecountymo.org>

Liz, thanks for taking the time to get all the related bid documents scanned and sent over so quickly. I reviewed all seven of the responses but only studied in detail the submittals from the five lowest price bidders. Prices from Advanced and Chouteau were deemed unreasonably high.

I have comments for each bid starting with lowest price and ending with highest price within the group of five.

Allstate Tower offered a bid of \$47,280.00. They supplied a single sheet drawing of the proposed tower, a sheet showing tentative feedline layout on the tower faces, and a single sheet of the proposed foundation plan that does refer to the Crockett Engineering soils report. There was no engineering reference or engineer's seal on any of the documents I saw and there were no tower design or loading calculations to verify the proposed structure plan. The required top-mounted platform was actually shown side-mounted, not as specified by County. I believe this bid represents an offer to perform to an indefinite standard but not on terms required by County. My recommendation is to reject this bid.

Nello Corporation offered a bid of \$51,500.00. Their submittal was very comprehensive and they appeared to understand County's procurement process and the details of the specifications. This is the firm which had submitted some clarification questions – and with whom you and I spoke at length – all related to a past bad experience they had thought was with the County, but was actually related to an electric cooperative in Oklahoma. Following our 25-minute phone call I felt like they better understood County's needs and they did, in fact, furnish an excellent submittal. Nello offered two alternative foundation designs based on Crockett Engineering soils report. Their drawings were clear and easy to read, the loading calculations were thorough and detailed, and everything was engineer sealed. Unfortunately, the tower they designed doesn't reflect the antenna loads County required. We specified a make and model of six nominal 20' antennas, three on the top platform and three at the 100' level, as used in the existing County system. Each of the six specified antennas weighs 68 pounds and has nearly 9 square-feet of surface area. Unfortunately, Nello substituted a different brand and model antenna on which they based their tower design and loading calculations. Each antenna substituted by Nello only weighs 24 pounds and has a 2.4 square-foot surface area. For calculating tower loading, this is not an equivalent substitution. Of greater concern is that Nello entirely omitted three large microwave dish antennas from their design and loading calculations. Three high-performance 4' diameter dishes were omitted from elevations at 165', 150' and 135'. The correct number of feedlines is present in the calculation documents, but

the antennas are absent. The tower appears to meet the design using the antennas that Nello has listed, but it does not meet the design using the antennas County has listed – and required. While this is a responsive submittal, I believe Nello has not furnished the tower that County requires and my recommendation is to not accept this bid as submitted.

Sabre Corporation offered a bid of \$53,663.00. Their submittal was comprehensive and they appeared to understand County's procurement process and the details of the specifications. The drawings were clear and easy to read and were engineer sealed as County required. The top-mounted platform proposed by Sabre fully meets County's specifications. The antenna and feedline list represents what County requires for this structure. Sabre offered two alternative foundation designs based on results of the Crockett Engineering soils report. I recommend accepting this bid as compliant.

Western Tower offered a bid of \$54,472.00. They appeared to understand County's procurement process but drawings were not engineer sealed. An important note on one elevation drawing stated that "Tower design is conceptual only – not for construction". Western offered only a three-pier foundation design which did reference the Crockett Engineering soils report. The platform they proposed is actually side mounted near the apex of the tower and not top-mounted as was required. The calculations that were provided appear to have been performed using standard engineering software, possibly by a technician familiar with tower design, but are not engineer referenced or sealed. My recommendation is to not accept this bid as submitted.

Tower Innovations offered a bid of \$59,105.00. They appeared to understand County's procurement process. All drawings were comprehensive, detailed and were engineer sealed. Tower analysis was comprehensive and detailed. They also furnished two versions of foundation design which were based on Crockett Engineering soils report and recommendations. I recommend accepting this bid as compliant.

Should you need additional information or have any questions about any of the above recommendations, please contact me.

David O. Dunford
Technical Consultant
County of Boone
Public Safety Joint Communications

**PURCHASE AGREEMENT
FOR
Radio Design, Engineering and Fabrication**

THIS AGREEMENT dated the 28th day of April 2015 is made between Boone County, Missouri, a political subdivision of the State of Missouri through the Boone County Commission, herein "County" and **Sabre Communications Corporation**, herein "Vendor."

IN CONSIDERATION of the parties performance of the respective obligations contained herein, the parties agree as follows:

1. **Contract Documents** - This agreement shall consist of this Purchase Agreement for one (1) Radio Tower designed, engineered and fabricated per Request for Bid number 14-24MAR15, including Addenda #1 and #2; and the Contractor's bid response dated March 20, 2015, executed by Mark E. Gothier on behalf of the Contractor. All such documents shall constitute the contract documents which are incorporated herein by reference. Service or product data, specification and literature submitted with bid response may be permanently maintained in the County Purchasing Office contract file for this bid if not attached. In the event of conflict between any of the foregoing documents this Purchase Agreement, the Request for Bid and any applicable addenda shall prevail and control over the Contractor's bid response.

2. **Purchase** - The County agrees to purchase from the Vendor and the Vendor agrees to supply the County with one (1) Radio Tower designed, engineered and fabricated to RFB 14-24MAR15 specifications for total cost of **Fifty Three Thousand, Six Hundred Sixty Three Dollars and NO Cents (\$53,663.00)**.

4. **Delivery** - Vendor agrees to deliver, within 45 days after receipt of order and *notification from Boone County*, one Radio Tower referenced herein, pre-packaged and knocked down, and shipped on flatbed truck to erection site at 2121 County Drive, Columbia, Missouri 65202. One set of anchor bolts and templates, with one leg-to-leg template shall be delivered in advance of tower materials shipment.

5. **Billing and Payment** - Invoice shall be addressed to the Boone County Auditor, Attn: Heather Acton, and shall reference RFB 14-24MAR15. Invoice may only include the price listed in the vendor's bid response. No additional fees for paper work processing, labor, or taxes shall be included as additional charges in excess of the charges in the Vendor's bid response to the specifications. The County agrees to pay all invoices within thirty days of receipt. In the event of a billing dispute, the County reserves the right to withhold payment on the disputed amount; in the event the billing dispute is resolved in favor of the Vendor, the County agrees to pay interest at a rate of 9% per annum on disputed amounts withheld commencing from the last date that payment was due.

6. **Binding Effect** - This agreement shall be binding upon the parties hereto and their successors and assigns for so long as this agreement remains in full force and effect.

7. **Entire Agreement** - This agreement constitutes the entire agreement between the parties and supersedes any prior negotiations, written or verbal, and any other bid or bid specification or contractual agreement. This agreement may only be amended by a signed writing executed with the same formality as this agreement.


8. **Termination** - This agreement may be terminated by the County upon thirty days advance written notice for any of the following reasons or under any of the following circumstances:


- a. County may terminate this agreement due to material breach of any term or condition of this agreement, or
- b. County may terminate this agreement if in the opinion of the Boone County Commission if delivery of products are delayed or products delivered are not in conformity with bidding specifications or variances authorized by County, or
- c. If appropriations are not made available and budgeted for any calendar year.

IN WITNESS WHEREOF the parties through their duly authorized representatives have executed this agreement on the day and year first above written.

SABRE COMMUNICATION CORPORATION

BOONE COUNTY, MISSOURI

by 
Mike Coghlan,
title V.P. of Sales & Marketing

by: Boone County Commission

Daniel K. Atwill, Presiding Commissioner


APPROVED AS TO FORM:

ATTEST:


C.J. Dykhouse, County Counselor


Wendy S. Noren, County Clerk

In accordance with RSMo 50.660, I hereby certify that a sufficient unencumbered appropriation balance exists and is available to satisfy the obligation(s) arising from this contract. (Note: Certification of this contract is not required if the terms of this contract do not create a measurable county obligation at this time.)

<u></u>	<u>4-21-15</u>	4101-71201 \$53,663.00
Signature	Date	Appropriation Account

STANDARD TERMS AND CONDITIONS - BOONE COUNTY, MISSOURI

1. Contractor shall comply with all applicable federal, state, and local laws and failure to do so, in County's sole discretion, shall give County the right to terminate this Contract.
2. Responses shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department identified in the Request for Bid and/or Proposal.
3. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item-by-item basis, or an "all or none" basis, whichever is in the best interest of the County.
4. Bidders must use the bid forms provided for the purpose of submitting bids, must return the bid and bid sheets comprised in this bid, give the unit price, extended totals, and sign the bid. The Purchasing Director reserves the right, when only one bid has been received by the bid closing date, to delay the opening of bids to another date and time in order to revise specifications and/or establish further competition for the commodity or service required. The one (1) bid received will be retained unopened until the new Closing date, or at request of bidder, returned unopened for re-submittal at the new date and time of bid closing.
5. When products or materials of any particular producer or manufacturer are mentioned in our specifications, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
6. Do not include Federal Excise Tax or Sales and Use Taxes in bid process, as law exempts the County from them.
7. The delivery date shall be stated in definite terms, as it will be taken into consideration in awarding the bid.
8. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
9. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Bidder responsible for any excess cost occasioned thereby.
10. Failure to deliver as guaranteed may disqualify Bidder from future bidding.
11. Prices must be as stated in units of quantity specified, and must be firm. Bids qualified by escalator clauses may not be considered unless specified in the bid specifications.
12. No bid transmitted by fax machine or e-mail will be accepted.
13. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.
14. The County reserves the right to award to one or multiple respondents. The County also reserves the right to not award any item or group of items if the services can be obtained from a state or other governmental entities contract under more favorable terms.
15. The County, from time to time, uses federal grant funds for the procurement of goods and services. Accordingly, the provider of goods and/or services shall comply with federal laws, rules and regulations applicable to the funds used by the County for said procurement, and contract clauses required by the federal government in such circumstances are incorporated herein by reference. These clauses can generally be found in the Federal Transit Administration's Best Practices Procurement Manual – Appendix A. Any questions regarding the applicability of federal clauses to a particular bid should be directed to the Purchasing Department prior to bid opening.

16. In the event of a discrepancy between a unit price and an extended line item price, the unit price shall govern.
17. Should an audit of Contractor's invoices during the term of the Agreement, and any renewals thereof, indicate that the County has remitted payment on invoices that constitute an over-charging to the County above the pricing terms agreed to herein, the Contractor shall issue a refund check to the County for any over-charges within 30-days of being notified of the same.
18. **For all titled vehicles and equipment the dealer must use the actual delivery date to the County on all transfer documents** including the Certificate of Origin (COO,) Manufacturer's Statement of Origin (MSO,) Bill of Sale (BOS,) and Application for Title.
19. **Equipment and serial and model numbers** - The contractor is strongly encouraged to include equipment serial and model numbers for all amounts invoiced to the County. If equipment serial and model numbers are not provided on the face of the invoice, such information may be required by the County before issuing payment.

INSTRUCTIONS FOR COMPLIANCE WITH HOUSE BILL 1549

House Bill 1549 addresses the Department of Homeland Security's and the Social Security Administration's E-Verify Program (Employment Eligibility Verification Program) that requires the County to verify "lawful presence" of individuals when we contract for work/service; verify that contractor has programs to verify lawful presence of their employees when contracts exceed \$5,000; and a requirement for OSHA safety training for public works projects.

The County is required to obtain certification that the bidder awarded the attached contract participates in a federal work authorization program. To obtain additional information on the Department of Homeland Security's E-Verify program, go to:

<http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bc e2e261405110VgnVCM1000004718190aRCRD&vgnextchannel=75bce2e261405110VgnVCM1000004 718190aRCRD>

Please complete and return form *Work Authorization Certification Pursuant to 285.530 RSMo* if your contract amount is in excess of \$5,000. **Attach to this form the first and last page of the E-Verify Memorandum of Understanding that you completed when enrolling.**

(Please complete and return with Bid)

**Certification Regarding
Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

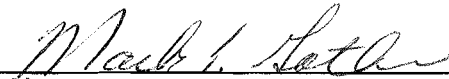
This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98 Section 98.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988, Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS FOR CERTIFICATION)

- (1) The prospective recipient of Federal assistance funds certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective recipient of Federal assistance funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Mark E. Gothier, Government Project Manager

Name and Title of Authorized Representative



Signature

March 20, 2015

Date

**WORK AUTHORIZATION CERTIFICATION
PURSUANT TO 285.530 RSMo
(FOR ALL AGREEMENTS IN EXCESS OF \$5,000.00)**

County of Woodbury)

State of Iowa)ss
)

My name is Mark E. Gothier. I am an authorized agent of Sabre Communications
(Bidder). This business is enrolled and participates in a federal work authorization
program for all employees working in connection with services provided to the County. This business
does not knowingly employ any person that is an unauthorized alien in connection with the services being
provided. Documentation of participation in a federal work authorization program is attached hereto.

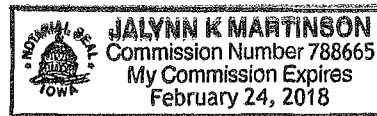
Furthermore, all subcontractors working on this contract shall affirmatively state in writing in
their contracts that they are not in violation of Section 285.530.1, shall not thereafter be in violation and
submit a sworn affidavit under penalty of perjury that all employees are lawfully present in the United
States.

Mark E. Gothier
Affiant Date

Mark E. Gothier
Printed Name

Subscribed and sworn to before me this 20 day of March, 2015.

Jalynn K. Martinson
Notary Public



CERTIFICATION OF INDIVIDUAL BIDDER

Pursuant to Section 208.009 RSMo, any person applying for or receiving any grant, contract, loan, retirement, welfare, health benefit, post secondary education, scholarship, disability benefit, housing benefit or food assistance who is over 18 must verify their lawful presence in the United States. Please indicate compliance below. Note: A parent or guardian applying for a public benefit on behalf of a child who is citizen or permanent resident need not comply.

- _____ 1. I have provided a copy of documents showing citizenship or lawful presence in the United States. (Such proof may be a Missouri driver's license, U.S. passport, birth certificate, or immigration documents). Note: If the applicant is an alien, verification of lawful presence must occur prior to receiving a public benefit.

- _____ 2. I do not have the above documents, but provide an affidavit (copy attached) which may allow for temporary 90 day qualification.

- _____ 3. I have provided a completed application for a birth certificate pending in the State of _____. Qualification shall terminate upon receipt of the birth certificate or determination that a birth certificate does not exist because I am not a United States citizen.

Applicant

Date

Printed Name

AFFIDAVIT
(Only Required for Individual Bidder Certification Option #2)

State of Missouri)
)SS.
County of _____)

I, the undersigned, being at least eighteen years of age, swear upon my oath that I am either a United States citizen or am classified by the United States government as being lawfully admitted for permanent residence.

Date

Signature

Social Security Number
or Other Federal I.D. Number

Printed Name

On the date above written _____ appeared before me and swore that the facts contained in the foregoing affidavit are true according to his/her best knowledge, information and belief.

Notary Public

My Commission Expires:

Company ID Number: 128253

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION

MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Social Security Administration (SSA), the Department of Homeland Security (DHS) and Sabre Towers and Poles (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). E-Verify is a program in which the employment eligibility of all newly hired employees will be confirmed after the Employment Eligibility Verification Form (Form I-9) has been completed.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note).

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF THE SSA

1. Upon completion of the Form I-9 by the employee and the Employer, and provided the Employer complies with the requirements of this MOU, SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all newly hired employees and the employment authorization of U.S. citizens.
2. The SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. The SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. The SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by the SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).
4. SSA agrees to establish a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 3 Federal Government work days of the initial inquiry.

Company ID Number: 128253

**INFORMATION REQUIRED
FOR THE E-VERIFY PROGRAM**

Information relating to your Company:

Company Name: Sabre Towers and Poles

Company Facility Address: 2101 Murray Street
Sioux City, IA 51111

Company Alternate Address: _____

County or Parish: WOODBURY

Employer Identification Number: 421078988

North American Industry
Classification Systems Code: 332

Parent Company: Sabre Industries, Inc.

Number of Employees: 100 to 499 Number of Sites Verified for: 2

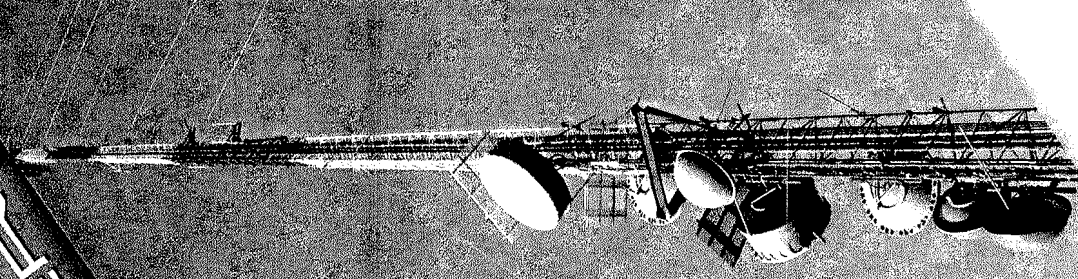
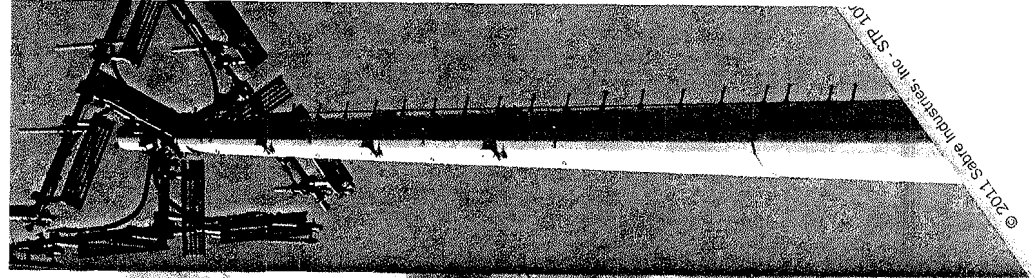
Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State.

- IOWA 2 site(s)

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	Janet Fuller	Fax Number:	(712) 277 - 4134
Telephone Number:	(712) 224 - 1588		
E-mail Address:	jfuller@sabrecom.com		
Name:	Paula Peterson	Fax Number:	(712) 277 - 4134
Telephone Number:	(712) 224 - 1520		
E-mail Address:	ppeterson@sabrecom.com		
Name:	Erin Baird	Fax Number:	(712) 277 - 4134
Telephone Number:	(712) 224 - 1584		
E-mail Address:	ebaird@sabrecom.com		

TOWERS AND POLES
2101 Murray St. • P.O. Box 658 • Sioux City, IA 51102 (USA)
Ph: (712) 258-6690 • Fx: (712) 258-8250 • www.sabretowersandpoles.com



Sabre Industries™
Towers and Poles

REQUEST FOR BID (RFB)
**RADIO TOWER DESIGN,
ENGINEERING AND FABRICATION
SERVICES**
BID NUMBER 14-24MAR15

ORIGINAL

1

COVER LETTER

2

RESPONSE FORMS

3

DESCRIPTIVE OUTLINE

- Warranty Statement

4

TOWER DRAWINGS

5

SABRE LITERATURE



Sabre Communications[™] Corporation

March 20, 2015

BOONE COUNTY
613 E. Ash Street
Columbia, MO 65201

Attn: Elizabeth Sanders, CPPB
Senior Buyer

Dear Ms. Sanders:

As per the Request for Bid (RFB) #14-24MAR15, please find following our quotation for the Radio Tower Design, Engineering and Fabrications Services as specified.

Sabre Industries, Inc. is the parent company of Sabre Communications Corporation, CellXion, LLC and Midwest Underground Technology, Inc. (MUTI). Their combined operations include: Sabre Towers and Poles, Sabre Site Solutions, Sabre Tubular Structures, Sabre Government Systems, Sabre Building Systems by CellXion and Midwest Underground Technology. Sabre provides infrastructure products and services throughout the United States and Internationally. Sabre is capable of offering a single, turnkey infrastructure solution with both products and services. Established in 1977, Sabre builds approximately 3,000 towers per year – making Sabre the largest tower manufacturer in the United States.

We use a number of professional management tools which enable us to view any program adjustments that may arise and how it will affect the overall schedule. This project schedule will be shared with all parties involved with the project via weekly project status report submittals.

Our engineering design personnel at our Sioux City facility have the responsibility for fulfilling/accomplishing the tower requirements as defined by the design documents including engineering drawings, specifications, basis of design criteria and drawing clarifications. Accreditation and certifications for our Engineering department includes Professional Engineers licensed in all 50 states, Puerto Rico, District of Columbia and Guam. Professional tools include AutoCAD design and drafting software, Microsoft Project and Primavera scheduling software and Guymast tower design and analysis software.

Engineering and manufacturing personnel perform the manufacturing activities for the tower which will be manufactured to customer designated requirements. Our Quality Control, receiving inspection, and production and management teams collaborate to ensure each structure is manufactured exactly to our drawings, on time and within budget. Sabre also requires a structured and detailed QA through monitored and schedules inspections to verify the work is completed in accordance with design and assure that both the quality and contractual requirements are met.

We at Sabre Communications Corporation feel that with our vast experience and with the assembled team of highly qualified employees and suppliers, we can provide Boone County with quality products that will meet your high expectations.

If you have any questions or require further information, please feel free to contact me at (800) 369-6690, ext. 11550.

Sincerely,

SABRE COMMUNICATIONS CORPORATION



Mark E. Gothier
Government Projects Manager

Enclosure: Per Above

MEG: rr

Sabre Communications[™] Corporation


March 23, 2015

BOONE COUNTY
613 E. Ash Street
Columbia, MO 65201

Attn: Elizabeth Sanders, CPPB
Senior Buyer

Addendum #2- RFP 14-24MAR15
Radio Tower Design
Engineering & Fabrications Service

Sincerely,
SABRE COMMUNICATIONS CORPORATION


Mark E. Gothier
Government Projects Manager

Enclosure: Per Above

MEG: rr



BOONE COUNTY, MISSOURI
Request for Bid #: 14-24MAR15 – Radio Tower Design, Engineering and
Fabrication Services

ADDENDUM #2 - Issued March 23, 2015

This addendum is issued in accordance with the Introductions and General Conditions of Bidding and Boone County Standard Terms and Conditions in RFB 14-24MAR15 and is hereby incorporated into and made a part of the Request for Bid Documents. Bidders are reminded that receipt of this addendum ***should be acknowledged*** and submitted with Bidder's *Response Form*.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect.

The **BID CLOSING DATE** has been extended **FROM** March 24, 2015 **TO** April 3, 2015 at 2:00 p.m in order to allow for prospective bidders to prepare and submit bid responses to this bid opportunity. No specification changes are made with this addendum.

By:

Elizabeth Sanders, CPPB
Senior Buyer, Purchasing

#2

OFFEROR has examined copy of Addendum ~~X~~ to Request for Bid#14-24MAR15, Radio Tower Design, Engineering and Fabrication Services, receipt of which is hereby acknowledged:

Company Name: Sabre Communications Corporation

Address: 7101 Southbridge Drive, Sioux City, Ia 51111

Phone Number: (712) 224-1550 Fax Number: (712) 279-0814

E-mail: megothier@sabreindustries.com

Authorized Representative Signature: Mark E. Gothier Date: March 23, 2015

Authorized Representative Printed Name: Mark E. Gothier

Sabre CommunicationsTM Corporation

March 23, 2015

BOONE COUNTY
613 E. Ash Street
Columbia, MO 65201

Attn: Elizabeth Sanders, CPPB
Senior Buyer

Addendum #1- RFP 14-24MAR15
Radio Tower Design
Engineering & Fabrications Service

Sincerely,
SABRE COMMUNICATIONS CORPORATION


Mark E. Gothier
Government Projects Manager

Enclosure: Per Above

MEG: rr



BOONE COUNTY, MISSOURI
Request for Bid #: 14-24MAR15 – Radio Tower Design, Engineering and
Fabrication Services

ADDENDUM #1 - Issued March 20, 2015

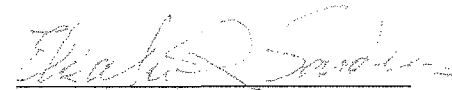
This addendum is issued in accordance with the Primary Specifications in the Request for Bid and is hereby incorporated into and made a part of the Request for Bid Documents. Bidders are reminded that receipt of this addendum should be acknowledged and submitted with Bidder's *Response Form*.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect.

The following are clarifications made with regard to the Primary Specifications in RFB 14-24MAR15:

- 1) **Question: Are we to include labor for erecting the Tower?**
Answer: No labor for foundation or erection is to be quoted. This bid is for materials only. Successful bidder will deliver materials to job site, unloading done by others.
- 2) **Question: Are we to provide only the mounts listed in Section 3.01?**
Answer: Furnish antenna mounts as described in Section 3.01 of the Primary Specifications.
- 3) **Question: Do antennas, dishes, coax need to be installed and provided?**
Answer: This is a bid for tower steel only. Refer to Section 3.01 for full descriptions of what is to be 'furnished' by successful bidder and what are 'design' aspects.
- 4) **Clarification request: Item 3.02- "Furnish exterior climbing ladder with required standoffs". Where in the specifications is the standoff requirement?**
Answer: The only "required standoff" is the spacing of the ladder that prevents a climber's boot toe from hanging up between a girt or strut and the ladder step.
- 5) **Clarification for Section 5.00 SUBMITTALS:** Bidders shall submit with Bid Response their drawings for Items 5.01, 5.02, 5.03, 5.04 and 5.05. These are preliminary design drawings, for proposal purposes and not to be used for construction purposes. *Sealed and stamped drawings* are to be furnished with Bid Response for Items 5.06 and 5.07: Structural analysis of tower, and Foundation design, all certified by registered professional engineer, state of registry: Missouri. Upon award of tower bid, successful bidder shall furnish *sealed and stamped* key erection drawings, fabrication and design drawings, and all certified by a registered professional engineer, state of registry: Missouri.

By:


Elizabeth Sanders, CPPB
Senior Buyer, Purchasing

OFFEROR has examined copy of **Addendum #1** to Request for Bid#**14-24MAR15, Radio Tower Design, Engineering and Fabrication Services**, receipt of which is hereby acknowledged:

Company Name: Sabre Communications Corporation

Address: 7101 Southbridge Drive, Sioux City, Ia 51111

Phone Number: (712) 224-1550 Fax Number: (712) 279-0814

E-mail: megothier@sabreindustries.com

Authorized Representative Signature: *Mark E. Gothier* Date: March 23, 2015

Authorized Representative Printed Name: Mark E. Gothier

4. Response Form

Company Name: Sabre Communications Corporation
 Address: 7101 Southbridge Drive
 City/Zip: Sioux City, Ia 51111
 Phone Number: (712) 224-1550
 E-Mail: megothier@sabreindustries.com
 Fax Number: (712) 279-0814

Federal Tax I.D. 42-1078988
 Corporation
 Partnership – Name _____
 Individual/Proprietorship – Individual Name _____
 Other (Specify) _____

4.00 PRICING

To furnish all resources, materials, and labor to completely design, engineer, fabricate and deliver FOB Destination to Columbia, MO a radio tower in accordance with these bid specifications and all applicable EIA and manufacturer-recommended specifications. **Refer to Primary Specifications.** Quoted cost below shall include key erection drawings, fabrication and design drawings, all certified by a registered professional engineer, state of registry: Missouri. State pricing as listed below:

4.01. Radio tower, designed, engineered, and fabricated per the above stated requirements.

FIFTY THREE THOUSAND SIX HUNDRED SIXTY THREE DOLLARS and NO CENTS
 (Quoted cost in print) \$ 53,663.00 /LUMP SUM

4.02. Delivery of all items specified in this bid: 4-6 WEEKS ARO (after receipt of order)

4.03. **With this Bid Response, include the following:**

- a. Plan View and Elevation of proposed tower.
- b. Tower section drawings showing all members, splice plate or flange details, and any additional information required to identify each component.
- c. Drawings to include dimensions and weights of sections and weight of complete tower assembly.
- d. Drawings of miscellaneous details including antenna mounts, top-mounted platform, waveguide ladder components, and standoff brackets.
- e. Plan view and elevation of foundation. To include reinforcing bar size, quantity and position, concrete quantities and finishing techniques, and all other pertinent information. Vendor may offer additional, alternative foundation designs based on local conditions. *If Vendor elects to submit additional, alternative foundation designs, clearly identify the submittal(s) as ALTERNATIVE 1, 2, etc. and supply all pertinent information, addressing all specifications and requirements listed in this bid.*
- f. Structural analysis of tower. Such analyses to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of analyses showing calculations and stresses.

- g. Foundation design. Such design(s) to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of design showing calculations and stresses.
- h. Submit sample detailed printed warranty.

4.04. **Subcontracting:** If Vendor proposes to use subcontractors for this work, list the names of the firms and the work to be assigned in spaces below.

<u>Subcontractor Name/Address</u>	<u>Work Assigned</u>
N/A	

4.05. **Debarment and Suspension:** By submission of its Bid Response, Vendor agrees to comply with the provisions of Executive Order 12549, regarding Debarment and Suspension. Specifically, the Vendor certifies that neither he/she nor their principals are 1.) presently debarred, suspended, proposed for debarment, declared ineligible or voluntary excluded from covered transactions by a Federal department or agency, 2) have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property; 3.) are not presently indicted for or otherwise criminally or civilly charged by a government entity with commission of any of the offenses stated above and 4.) have not within a three year period preceding this bid had one or more public transactions terminated for cause or default.

4.06. **Certification of Non-Resident/Foreign Contractors:** If the Contractor is a foreign corporation or nonresident Contractor, it is agreed that the Contractor shall procure and maintain during the life of this contract:

- A. A certificate of authority to transact business in the State of Missouri from the Secretary of State, unless exempt pursuant to the provisions of Section 351.572 RSMo.
- B. A certificate from the Missouri Director of Revenue evidencing compliance with transient employer financial assurance law, unless exempt pursuant to the provisions of Section 285.230 RSMo.

- 4.07. The undersigned offers to furnish and deliver the articles or services as specified at the prices and terms stated and in strict accordance with all requirements contained in the Request for Bid which have been read and understood, and all of which are made part of this order. By submission of this bid, the vendor certifies that they are in compliance with Section 34.353 and, if applicable, Section 34.359 (Missouri Domestic Products Procurement Act) of the Revised Statutes of Missouri.

Authorized Representative (Sign By Hand):

Mark E. Gothier

Date: March 20, 2015

Print Name and Title of Authorized Representative:

Mark E. Gothier, Government Project Manager

STATEMENT OF BIDDER'S QUALIFICATIONS

Each bidder for the work included in the specifications and plans and the Contract Documents shall submit with their bid the data requested in the following schedule of information. This data must be included in and made a part of each bid document and be contained in the sealed envelope. Failure to comply with this instruction may be regarded as justification for rejecting the Contractor's proposal.

1. Name of Bidder: Sabre Communications Corporation
2. Business Address: 7101 Southbridge Drive, Sioux City, Ia 51111
3. When Organized: May 27, 1977
4. When Incorporated: 5/27/77 5. List federal tax identification number: 42-1078988
If not incorporated, state type of business (sole proprietor, partnership, or other) _____
6. Number of years engaged in business under present firm name: 37
7. If you have done business under a different name, please give name and business location under that name: n/a
8. Percent of work done by own staff: 100%
9. Have you ever failed to complete any work awarded to your company? If so, where and why? No
10. Have you ever defaulted on a contract? No If so, give _____
11. List of contracts completed within the last three years for work similar in scope to that described in this bid, including value of each. **See Attached**
12. List of projects currently in progress: **See Attached**

* Attach additional sheets as necessary *



Sabre Communications CorporationTM

QUALIFICATIONS-ITEM #11

Customer Address	Alabama Power 600 North 18 th Street Birmingham, AL 35203
Site	Clark Mountain
Project Description	Furnish and Install 185' Self-Supporting Tower
Performance Period	March 2012 to July 2012
Contract Amount	\$143,416.00
Customer Address	Beaver County 351 14th Street Ambridge, PA 15009
Site	Hanover Township
Project Description	Furnish and Install 150' Self-Supporting Tower
Performance Period	February 2011 to January 2012
Contract Amount	\$36,301.00
Customer Address	Blanco County 101 East Peach Street Johnson City, TX 78636
Site	Church Tank, Round Mountain
Project Description	Furnish and Install (2) 300' Self-Supporting Towers
Performance Period	November 2011 to April 2012
Contract Amount	\$283,751.00
Customer Address	Burke County 200 Avery Avenue Morganton, NC 28656
Site	New Emergency Communications Center
Project Description	Furnish and Install 150' Extendable to 200' Self-Supporting Tower
Performance Period	September 2013 to February 2014
Contract Amount	\$205,405.00
Customer Address	Chesapeake Operating, Inc. 6100 North Western Oklahoma City, OK 73118
Site	Various, Texas, Oklahoma
Project Description	Furnish and Install (73) Self-Supporting Towers, (5) Guyed Towers
Performance Period	March 2007 to July 2014
Contract Amount	\$3,582,119.00



Sabre Communications[™] Corporation

QUALIFICATIONS-ITEM #11

Customer Address	City of Arvada 8101 Ralston Road Arvada, CO 80002
Site	Dover Way & W. 58th
Project Description	Furnish and Install 100' Ext 120' Self-Supporting Tower, Site Work, A&L Installation, Tower Demolition
Performance Period	June 2013 to March 2014
Contract Amount	\$138,912.00
Customer Address	City of San Antonio 114 W. Commerce Street San Antonio, TX 78205
Site	South Frio Street
Project Description	Furnish and Install 500' Self-Supporting Tower, Equipment Shelter, Compound, Fence, Electrical, Generator, Antennas & Lines and Tower Demolition
Performance Period	July 2011 to June 2014
Contract Amount	\$1,438,411.00
Customer Address	Clinton County 100 East State Street St. Johns, MI 48879
Site	Southwest Tower
Project Description	Furnish and Install 300' Self-Supporting Tower
Performance Period	June 2011 to February 2012
Contract Amount	\$335,218.00
Customer Address	CN Rail Montreal 17641 S. Ashland Avenue Homewood, IL 60430
Site	Various
Project Description	Furnish and Install (45) Self-Supporting Towers, (3) Monopoles
Performance Period	June 2009 to April 2014
Contract Amount	\$3,736,223.00
Customer Address	Fallon County 10 Fallon Avenue West Baker, MT 59313
Site	Big Sheep Mtn., Beaver Hill, N. Repeater, Dispatch, S. Repeater, Markuson
Project Description	Furnish and Install (6) Self-Supporting Towers
Performance Period	September 2012 to May 2013
Contract Amount	\$742,740.00



Sabre Communications[™] Corporation

QUALIFICATIONS-ITEM #11

Customer Address	Forest County 526 Elm Street Tionesta, PA 16353
Site	Forest County
Project Description	Furnish and Install 280' Self-Supporting Tower
Performance Period	October 2012 to November 2013
Contract Amount	\$228,681.00
Customer Address	Floresville Electric Light and Power 1400 Fourth Street Floresville, TX 78114
Site	Sutherland Springs, Floresville, Eagle Creek Substation, TX
Project Description	Furnish and Install (2) 300' Self-Supporting Towers, (2) Equipment Shelters with Generators
Performance Period	June 2009 to September 2009 November 2013 to April 2014
Contract Amount	\$732,249.00
Customer Address	Geauga County 12518 Merritt Road Chardon, OH 44024
Site	Troy, Chargin
Project Description	Furnish and Install (2) 300' Self-Supporting Towers, (2) Equipment Shelters
Performance Period	October 2010 to March 2012
Contract Amount	\$710,627.00
Customer Address	Grand River Dam Authority 226 W. Dwain Willis Avenue Vinita, OK 74301
Site	Saline Creek Substation
Project Description	Furnish and Install 220' Self-Supporting Tower
Performance Period	July 2014 to August 2014
Contract Amount	\$74,776.00
Customer Address	Jefferson Parish Emergency Operations 910 3 rd Street Gretna, LA 70054
Site	West Bank, LA
Project Description	Furnish and Install 300' Self-Supporting Tower, Equipment Shelter, Compound, Electrical, Tower Dismantle
Performance Period	February 2013 to April 2014
Contract Amount	\$1,208,954.00



Sabre Communications Corporation™

QUALIFICATIONS-ITEM #11

Customer Address	Jefferson County 911 301 Market Street Steubenville, OH 43952
Site	Dillonvale
Project Description	Furnish and Install 300' Self-Supporting Tower
Performance Period	May 2014 to October 2014
Contract Amount	\$201,799.00
Customer Address	Johnston County Public Utilities PO Box 2263 Smithfield, NC
Site	Huntley Drive
Project Description	Furnish and Install 120' Self-Supporting Tower, A&L Installation
Performance Period	March 2013 to June 2013
Contract Amount	\$48,313.00
Customer Address	Lincoln Electric 2620 Fairfield Street Lincoln, NE 68501
Site	Lincoln
Project Description	Furnish and Install 400' Self-Supporting Tower
Performance Period	February 2013 to June 2013
Contract Amount	\$339,968.00
Customer Address	Management and Engineering Technologies Int'l, Inc. 8600 Boeing Drive El Paso, TX 79925
Sites	Texas, Oregon, Idaho, Georgia, New Mexico, Arizona, Illinois
Project Description	Furnish and Install (22) Self-Supporting Towers and (25) Guyed Towers
Performance Period	May 2008 to September 2013
Contract Amount	\$2,960,881.00
Customer Address	Northern Natural Gas 8101 Birchwood Court Johnston, IA 50131
Site	Homer, NE
Project Description	Furnish and Install 50' Free-Standing Tower
Performance Period	July 2014 to December 2014
Contract Amount	\$18,913.00



Sabre Communications[™] Corporation

QUALIFICATIONS-ITEM #11

Customer Address	Pipestone County P.O. Box 220 Pipestone, MN 56164
Site	Pipestone Tower
Project Description	Furnish and Install 180' Self-Supporting Tower
Performance Period	October 2012 to January 2013
Contract Amount	\$81,511.00
Customer Address	Southside Electric Services 2000 West Virginia Avenue Crewe, VA 23930
Sites	Brunswick, Sycamore, Wellville Sub, Martin, Briery, Lake Chesdin
Project Description	Furnish and Install (6) Self-Supporting Towers
Performance Period	July 2014 to December 2014
Contract Amount	\$268,791.00
Customer Address	South Texas Electric Cooperative 2849 FM 447 Nursery, TX 77976
Sites	San Miguel, Lenz, Berclair, Beeville, Sam Rayburn, Goliad, Peggy, Midway
Project Description	Furnish and Install (2) Self-Supporting Towers, Antenna and Line Installation @ (6) Sites
Performance Period	March 2014 to September 2014
Contract Amount	\$609,993.00
Customer Address	State of Missouri 3525 North Belt Highway St. Joseph, MO 65102
Site	MSHP Troop H
Project Description	Furnish and Install 320' Self-Supporting Tower, Site Work, Antennas and Lines, Tower Demolition
Performance Period	April 2012 to October 2012
Contract Amount	\$253,590.00
Customer Address	Sweetgrass County 115 W. 5 th Avenue Big Timber, MT 59011
Site	County Court House
Project Description	Furnish and Install 100' Self-Supporting Tower
Performance Period	August 2011 to February 2012
Contract Amount	\$81,487.00



Sabre Communications[™] Corporation

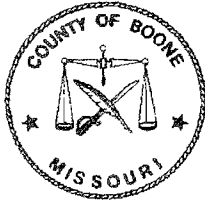
QUALIFICATIONS-ITEM #11

Customer Address	Tioga County 118 Main Street Wellsboro, PA 16901
Site	Wellsboro
Project Description	Furnish and Offload 180' Self-Supporting Tower, Furnish and Offload Equipment Shelter
Performance Period	March 2014 to October 2014
Contract Amount	\$114,876.00
Customer Address	Wapello County 101 West 4 th Street Ottumwa, IA 52501
Site	Wapello County
Project Description	Supply and Install 250' Self-Supporting Tower
Performance Period	November 2012 to November 2013
Contract Amount	\$300,838.00
Customer Address	Western Farmers Electric Cooperative 701 N.E. 7 th Street Anadarko, OK 73005
Site	Beckham County, OK
Project Description	Furnish and Install 80' Self-Supporting Tower
Performance Period	August 2014 to December 2014
Contract Amount	\$39,227.00



Bidder's Qualifications
Item #12 (Current Projects)

Sabre Communications has been designing, manufacturing and installing communications towers since 1977. We manufacture approximately 3,000 towers per year, making Sabre the largest tower manufacturer in the United States. We currently have 109 self-supporting towers on our production schedule.



"No Bid" Response Form

Boone County Purchasing
613 E. Ash, Room 111
Columbia, MO 65201

Elizabeth Sanders, Senior Buyer
(573) 886-4393 – Fax: (573) 886-4390

"NO BID RESPONSE FORM"

**NOTE: COMPLETE AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO
SUBMIT A BID**

If you do not wish to respond to this bid request, but would like to remain on the Boone County vendor list for this service/commodity, please remove form and return to the Purchasing Department by mail or fax.

If you would like to FAX this "No Bid" Response Form to our office, the FAX number is (573) 886-4390.

**Bid: 14-24MAR15 – RADIO TOWER DESIGN, ENGINEERING,
FABRICATION SERVICES**

Business Name: _____

Address: _____

Telephone: _____

Contact: _____

Date: _____

Reason(s) for not bidding:



Boone County Purchasing
613 E. Ash, Room 111
Columbia, MO 65201

Standard Terms and Conditions

Elizabeth Sanders, Senior Buyer
Phone: (573) 886-4393 – Fax: (573) 886-4390

1. Contractor shall comply with all applicable federal, state, and local laws and failure to do so, in County's sole discretion, shall give County the right to terminate this Contract.
2. Responses shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department identified in the Request for Bid and/or Proposal.
3. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item-by-item basis, or an "all or none" basis, whichever is in the best interest of the County.
4. Bidders must use the bid forms provided for the purpose of submitting bids, must return the bid and bid sheets comprised in this bid, give the unit price, extended totals, and sign the bid. The Purchasing Director reserves the right, when only one bid has been received by the bid closing date, to delay the opening of bids to another date and time in order to revise specifications and/or establish further competition for the commodity or service required. The one (1) bid received will be retained unopened until the new Closing date, or at request of bidder, returned unopened for re-submittal at the new date and time of bid closing.
5. When products or materials of any particular producer or manufacturer are mentioned in our specifications, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
6. Do not include Federal Excise Tax or Sales and Use Taxes in bid process, as law exempts the County from them.
7. The delivery date shall be stated in definite terms, as it will be taken into consideration in awarding the bid.
8. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
9. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Bidder responsible for any excess cost occasioned thereby.
10. Failure to deliver as guaranteed may disqualify Bidder from future bidding.
11. Prices must be as stated in units of quantity specified, and must be firm. Bids qualified by escalator clauses may not be considered unless specified in the bid specifications.
12. No bid transmitted by fax machine or e-mail will be accepted.
13. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.
14. The County reserves the right to award to one or multiple respondents. The County also reserves the right to not award any item or group of items if the services can be obtained from a state or other governmental

entities contract under more favorable terms.

15. The County, from time to time, uses federal grant funds for the procurement of goods and services. Accordingly, the provider of goods and/or services shall comply with federal laws, rules and regulations applicable to the funds used by the County for said procurement, and contract clauses required by the federal government in such circumstances are incorporated herein by reference. These clauses can generally be found in the Federal Transit Administration's Best Practices Procurement Manual -- Appendix A. Any questions regarding the applicability of federal clauses to a particular bid should be directed to the Purchasing Department prior to bid opening.
16. In the event of a discrepancy between a unit price and an extended line item price, the unit price shall govern.
17. Should an audit of Contractor's invoices during the term of the Agreement, and any renewals thereof, indicate that the County has remitted payment on invoices that constitute an over-charging to the County above the pricing terms agreed to herein, the Contractor shall issue a refund check to the County for any over-charges within 30-days of being notified of the same.
18. **For all titled vehicles and equipment the dealer must use the actual delivery date to the County on all transfer documents** including the Certificate of Origin (COO,) Manufacturer's Statement of Origin (MSO,) Bill of Sale (BOS,) and Application for Title.
19. **Equipment and serial and model numbers** - The contractor is strongly encouraged to include equipment serial and model numbers for all amounts invoiced to the County. If equipment serial and model numbers are not provided on the face of the invoice, such information may be required by the County before issuing payment.

INSTRUCTIONS FOR COMPLIANCE WITH HOUSE BILL 1549

House Bill 1549 addresses the Department of Homeland Security's and the Social Security Administration's E-Verify Program (Employment Eligibility Verification Program) that requires the County to verify "lawful presence" of individuals when we contract for work/service; verify that contractor has programs to verify lawful presence of their employees when contracts exceed \$5,000; and a requirement for OSHA safety training for public works projects.

The County is required to obtain certification that the bidder awarded the attached contract participates in a federal work authorization program. To obtain additional information on the Department of Homeland Security's E-Verify program, go to:

<http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bce2e261405110VgnVCM1000004718190aRCRD&vgnnextchannel=75bce2e261405110VgnVCM1000004718190aRCRD>

Please complete and return form *Work Authorization Certification Pursuant to 285.530 RSMo* if your contract amount is in excess of \$5,000. **Attach to this form the first and last page of the *E-Verify Memorandum of Understanding* that you completed when enrolling.**

Company ID Number: 128253

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION

MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Social Security Administration (SSA), the Department of Homeland Security (DHS) and **Sabre Towers and Poles** (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). E-Verify is a program in which the employment eligibility of all newly hired employees will be confirmed after the Employment Eligibility Verification Form (Form I-9) has been completed.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note).

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF THE SSA

1. Upon completion of the Form I-9 by the employee and the Employer, and provided the Employer complies with the requirements of this MOU, SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all newly hired employees and the employment authorization of U.S. citizens.
2. The SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. The SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. The SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by the SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).
4. SSA agrees to establish a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 3 Federal Government work days of the initial inquiry.

**WORK AUTHORIZATION CERTIFICATION
PURSUANT TO 285.530 RSMo
(FOR ALL AGREEMENTS IN EXCESS OF \$5,000.00)**

County of Woodbury)

State of Iowa)ss
)

My name is Mark E. Gothier. I am an authorized agent of Sabre Communications
(Bidder). This business is enrolled and participates in a federal work authorization program for all employees working in connection with services provided to the County. This business does not knowingly employ any person that is an unauthorized alien in connection with the services being provided. Documentation of participation in a federal work authorization program is attached hereto.

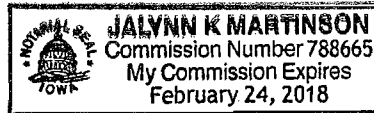
Furthermore, all subcontractors working on this contract shall affirmatively state in writing in their contracts that they are not in violation of Section 285.530.1, shall not thereafter be in violation and submit a sworn affidavit under penalty of perjury that all employees are lawfully present in the United States.

Mark E. Gothier
Affiant Date

Mark E. Gothier
Printed Name

Subscribed and sworn to before me this 20 day of March, 2015.

Jalynn K. Martinson
Notary Public





WARRANTY STATEMENT



Sabre CommunicationsTM Corporation

ONE (1) YEAR LIMITED WARRANTY

Sabre Communications Corporation (Sabre) warrants to Buyer that the products from a period of one (1) year will be free from defects of material and workmanship. This Warranty covers design, fabrication, foundations, erection and all other goods supplied with the original tower by Sabre, which are not specifically excluded in this Warranty. Certain items are not covered under this Warranty. These items include, but are not limited to: antennas, lines, and related ancillary equipment, lighting equipment, light bulbs, or other materials. In addition, Sabre does not warrant defects or failure caused by any of the following items, which include, but are not limited to: normal wear and tear, vandalism, faulty installation by Buyer or its employees or agents, failure due to winds and/or ice that exceed the Buyer's design requirements, anchor failure caused by electrolytic corrosion, flying objects, improper modifications or repair, lightning, flood, earthquake, vehicles, or animals. This Warranty will remain valid for the period set forth only if you do the following:

- a. Make adequate tower and site inspections at six-month intervals;
- b. Perform proper maintenance of the tower pursuant to industry standards;
- c. Maintain inspection/maintenance reports; and,
- d. Maintain load levels at or under design parameters.

If the tower is loaded with antennas, lines or appurtenances, which overstress the tower beyond its original design parameters, or if you fail to do required inspections and/or maintenance, then this Warranty shall be null and void, not merely voidable. In addition, Sabre retains the right, in the event of a claim under this Warranty, to inspect the tower and fully investigate all claims. In the event of a claim under this Warranty, which, after inspection and full investigation by Sabre, Sabre determines, in its sole discretion, to be covered by the Warranty, then Sabre's sole obligation under these Warranties will be limited to either, at Sabre's option and expense, repairing, furnishing and installing replacement of failed components at this site, first point of shipment for the products or parts thereof which Sabre reasonably determines do not conform with these warranties, and Buyer's exclusive remedy for breach of any such warranties will be enforcement of such obligation of Sabre. IN NO EVENT SHALL SABRE BE LIABLE FOR CONSEQUENTIAL DAMAGES, NOR SHALL SABRE'S LIABILITY ON ANY CLAIMS FOR DAMAGES ARISING OUT OF OR CONNECTED WITH THE SALES CONTRACT OR THE MANUFACTURE, SALE, DELIVERY OR USE OF PRODUCTS EXCEED THE PURCHASE PRICE OF THE PRODUCTS. ANY ACTION FOR BREACH OF WARRANTY MUST BE COMMENCED WITHIN ONE (1) YEAR AFTER THE CAUSE OF ACTION ACCRUES.

DISCLAIMER OF OTHER WARRANTIES

THIS DOCUMENT IS A COMPLETE AND EXCLUSIVE STATEMENT OF THE WARRANTIES OFFERED BY THE SELLER. THERE ARE NO WARRANTIES BEYOND THOSE EXPRESSLY STATED IN THIS WRITING. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESSED OR IMPLIED.

DESCRIPTIVE OUTLINE

Prepared for: **BOONE COUNTY**
 613 E. Ash Street
 Columbia, MO 65201
 Attn: Ms. Elizabeth Sanders

Proposal No.: **15-8522-MEG-GOV**
 Date: **03/20/15** Page 1 of 4
 Reference: **175' S3R/County Drive, MO**
 Freight: **Destination**

SABRE MODEL S3R SELF-SUPPORTING TOWER

Quantity of one (1) 175' Sabre Model S3R self-supporting tower.

The tower will be triangular in design with a base width of 15' - 6" tapering to 5' - 0" at the top. The tower will utilize solid round steel for tower legs and angular steel for bracing.

The tower will be designed for a basic wind speed of 90 mph with 0" of radial ice, and 40 mph with 1" of radial ice, in accordance with ANSI/TIA-222-G.

***This tower has been designed with an importance factor of 1.25**

Revision G Parameters:

- Structure Class III
- Exposure Category C
- Topographic Category 1

****Refer to Notes section for definitions of Revision G parameters.**

The tower will be designed to support the following equipment:

	ANTENNA MODEL NUMBER (QTY)	RADOME		ELEVATION C.O.R.	TX. LINE SIZE & TYPE	FREQUENCY	AZIMUTH TO NORTH	ANTENNA MOUNT (DESIGN)	MOUNT PROVIDED	
		YES	NO						YES	NO
1	(3) ATC-GD1V40 Alive Telecommunications Antenna's		X	175' At Base	(6) 7/8"	N/A	Unknown	One (1) 14' Fixed Platform with handrails and toeboards		X
2	(3) DB222 Decibel Antenna's		X	175' At Base	(3) 7/8"	N/A	Unknown	Same as Above		X
3	(3) SP3-5.2 Radio Waves Antenna's		X	175'	(3) 5/8"	5.2 GHz	0°, 120°, 240°	Same as Above	X	
4	(1) 4' H.P. Dish		X	165'	(1) EW52	6 GHz	120°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
5	(1) 4' H.P. Dish		X	165'	(1) EW52	6 GHz	240°	One (1) 4-1/2" O.D. Leg-type Dish Mount		X
6	(1) 6' H.P. Dish		X	165'	(1) EW52	6 GHz	0°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
7	(1) 4' H.P. Dish		X	150'	(1) EW52	6 GHz	120°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
8	(1) 4' H.P. Dish		X	150'	(1) EW52	6 GHz	240°	One (1) 4-1/2" O.D. Leg-type Dish Mount		X
9	(1) 6' H.P. Dish		X	150'	(1) EW52	6 GHz	0°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
10	(1) 4' H.P. Dish		X	135'	(1) EW52	6 GHz	120°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
11	(1) 4' H.P. Dish		X	135'	(1) EW52	6 GHz	240°	One (1) 4-1/2" O.D. Leg-type Dish Mount		X
12	(1) 6' H.P. Dish		X	135'	(1) EW52	6 GHz	0°	One (1) 4-1/2" O.D. Leg-type Dish Mount	X	
13	(12) 5960110s		X	125'	(15) 1 5/8"	N/A	Unknown	One (1) Fixed Platform		X
14	(3) Tower Top Amplifiers		X	125'	(9) 1/2"	N/A	Unknown	Same as above		X
15	(3) ATC-GD1V40 Alive Telecommunications Antenna's		X	100'	(3) 7/8"	N/A	N/A	Three (3) 3' Sidearms	X	
16	(3) ATC-GD1V40 Alive Telecommunications Antenna's		X	30'	(12) 1/2"	N/A	N/A	Three (3) 3' Sidearms without Tieback Kits/ Tip Supports Three (3) 3' Sidearms with Tieback Kits	X	



DESCRIPTIVE OUTLINE

Prepared for: BOONE COUNTY
613 E. Ash Street
Columbia, MO 65201
Attn: Ms. Elizabeth Sanders

Proposal No.: 15-8522-MEG-GOV
Date: 03/20/15 Page 2 of 4
Reference: 175' S3R/County Drive, MO
Freight: Destination

ITEM 1 TOWER MATERIALS

Materials to be provided include:

- Complete tower steel and hardware
Anchor bolts and templates
Construction step bolts (see notes)
Outside climbing ladder with required 7" standoffs
Three (3) waveguide support ladders (to support all lines)
One (1) 14' fixed platform with handrails and toeboards at the 175' elevation
Three (3) 4-1/2" O.D. leg dish mounts each at the 175' elevation
One (1) 4-1/2" O.D. leg dish mount at the 165' elevation
One (1) 4-1/2" O.D. leg dish mount with one (1) stiffarm mounting assembly at the 165' elevation
One (1) 4-1/2" O.D. leg dish mount at the 150' elevation
One (1) 4-1/2" O.D. leg dish mount with one (1) stiffarm mounting assembly at the 150' elevation
One (1) 4-1/2" O.D. leg dish mount at the 135' elevation
One (1) 4-1/2" O.D. leg dish mount with one (1) stiffarm mounting assembly at the 135' elevation
Three (3) 3' sidearms each with one (1) tieback kit and one (1) 5' mounting pipe at the 100' elevation
Three (3) 3' sidearms each with one (1) 5' mounting pipe at the 50' elevation
Three (3) 3' sidearms each with one (1) tieback kit and three (3) 5' mounting pipes at the 30' elevation
Safety cable kit without harness (200')
Leg to leg templates
P.E. certified tower profile and foundation drawings
Final erection drawings

TOWER FREIGHT TO BOONE COUNTY, MISSOURI

ANCHOR BOLT FREIGHT TO BOONE COUNTY, MISSOURI

*The above is for one (1) set of anchor bolts and templates, and one (1) leg-to-leg template to be shipped together in one (1) shipment to the same destination at the same time.

OPTION: Waveguide Bridge 2-Leg 2' x 10' (18' Direct Burial) with Three (3) 4 Level Trapeze Kits (each).....\$ 740.00

DESCRIPTIVE OUTLINE

Prepared for: **BOONE COUNTY**
613 E. Ash Street
Columbia, MO 65201
Attn: Ms. Elizabeth Sanders

Proposal No.: **15-8522-MEG-GOV**
Date: **03/20/15** Page 3 of 4
Reference: **175' S3R/County Drive, MO**
Freight: **Destination**

NOTES: Terms are Net 30 days after invoice.

Classification of Structure:

- Class Three
Structures used primarily for essential communications such as: civil or national defense, emergency, rescue or other disaster operations, military and navigation facilities.

Exposure Categories:

- Exposure C
Open terrain with scattered obstructions having heights generally less than 30 feet. This category includes flat, open country, grasslands and shorelines in hurricane prone regions. *Exposure C is the standard default for exposure categories.*

Topographic Categories:

- Category 1
No abrupt changes in general topography, e.g. flat or rolling, no wind speed-up consideration shall be required. *Category one is the standard default for the topographic categories.*

The permit package includes a profile drawing of the structure with member sizes; anchor bolt details; descriptive notes; structural calculations; a table of supported antennas, mounts and feedlines; and a foundation sketch and calculations (if applicable).

This quotation is based on ANSI/TIA-222-G and Customer provided specifications.

Foundation and anchor bolt designs are based strictly on ANSI/TIA-222-G.

Dimensional information is preliminary only; it may change based on final engineering without altering the basic tower configuration.

All Sabre mounts are quoted with support pipes of appropriate length for most applications if not otherwise specified.

Cable type safety climbing device provided does not include harness.

Grounding is to be provided by others.

Freight charges quoted are for provided materials only. Additional freight charges may be incurred with the order of additional items.

All antennas, transmission lines, jumpers, ground kits, hangers, and hardware are to be provided and installed by others.

All tower materials will be hot dip galvanized as outlined in ASTM A-123.

Construction step bolts have been quoted to the 20' elevation on all three legs for safety and ease of construction. Step bolts should not be used for climbing without the use of a safety climbing device or fall protection equipment.

Sabre CommunicationsTM Corporation

DESCRIPTIVE OUTLINE

Prepared for: **BOONE COUNTY**
613 E. Ash Street
Columbia, MO 65201
Attn: Ms. Elizabeth Sanders

Proposal No.: 15-8522-MEG-GOV
Date: 03/20/15 Page 4 of 4
Reference: 175' S3R/County Drive, MO
Freight: Destination

Title, ownership, risk of loss, risk of material obsolescence and risk of material market value decline shall pass to the Customer upon invoicing or shipment to Customer, whichever occurs earlier in time.

Delivery will be approximately 4 to 6 weeks after receipt of approved order.

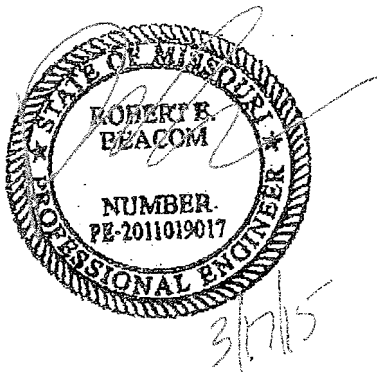
Structural Design Report
175' S3R Series SD Self-Supporting Tower
Site: County Drive, MO

Prepared for: BOONE COUNTY
by: Sabre Towers & Poles™

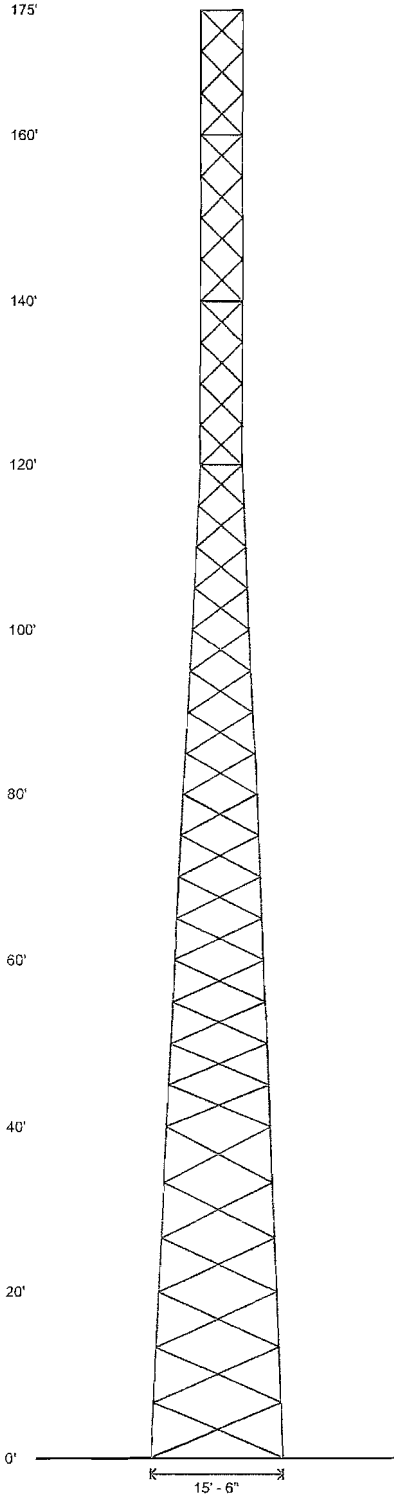
Job Number: 15-8522-MEG

March 17, 2015

Tower Profile.....	1-2
Foundation Design Summary (Option 1).....	3
Foundation Design Summary (Option 2).....	4
Maximum Leg Loads.....	5
Maximum Diagonal Loads.....	6
Maximum Foundation Loads.....	7
Calculations.....	8-19



Legs	4.5 S.R.	4.25 S.R.	3.75 S.R.	3.5 S.R.	3.25 S.R.	3.0 S.R.	2.25 S.R.	1.75 S.R.
Diagonals	L 3 X 3 X 3/16	L 2 1/2 X 2 1/2 X 1/4	NONE	L 2 X 2 X 1/4	L 2 X 2 X 5/16	L 2 X 2 X 3/16	L 2 X 2 X 1/8	L 2 X 2 X 1/8
Horizontals	(1) 3/4"	(1) 3/4"	(1) 5/8"	A	NONE	B	NONE	NONE
Brace Bolts	6 @ 6.6667'	5 @ 6.6667'	27 @ 5'	27 @ 5'	2420	1481	764	764
Top Face Width	13.75'	12'	10.25'	6.75'	5'	5'	5'	5'
Panel Count/Height	4983	4438	3896	2960	2631	2420	1481	764
Section Weight	4983	4438	3896	2960	2631	2420	1481	764



Base Reactions

Total Foundation		Individual Footing	
Shear (kips)	56.7	Shear (kips)	34.52
Axial (kips)	168.54	Compression (kips)	452
Moment (ft-kips)	5836	Uplift (kips)	415
Torsion (ft-kips)	18.38		

Material List

Display	Value
A	L 2 X 2 X 1/4
B	L 2 X 2 X 5/16
C	L 2 X 2 X 3/16
D	L 2 X 2 X 1/8


Notes

- 1) All legs are 50 ksi.
- 2) All braces are 36 ksi.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3R Series SD.
- 5) Transmission lines are to be attached to standard 12 hole waveguide ladders with stackable hangers.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) (6) 1 1/2" dia. F1554 grade 105 anchor bolts per leg. Minimum 57.5" embedment from top of concrete to top of nut.
- 9) All unequal angles are oriented with the short leg vertical.
- 10) Weights shown are estimates. Final weights may vary.
- 11) This tower was designed for a basic wind speed of 90 mph with 0" of radial ice and 40 mph with 1" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class III, Exposure Category C, Topographic Category 1.
- 12) The foundation loads shown are factored loads.
- 13) The tower and foundation(s) were designed with an importance factor of 1.25.

	Sabre Communications Corporation 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 259-6299 Fax: (712) 279-0814	Job: 15-8522-MEG Customer: BOONE COUNTY Site Name: County Drive, MO Description: 175' S3R Date: 3/17/2015
	<small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 530 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small>	By: REB

Designed Appurtenance Loading

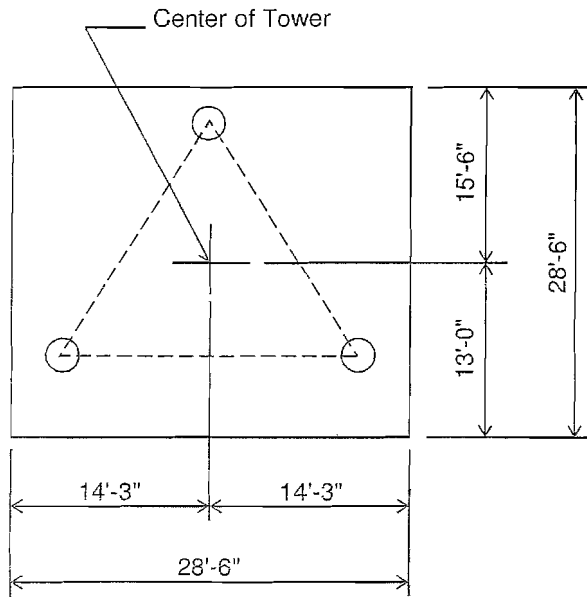
Elev	Description	Tx-Line	Elev	Description	Tx-Line
185	(3) ATC-GD1V40s		150	(1) 4' H.P. Dish	(1) EW52
180.3	(3) DB222s		135	Leg Dish Mount	
175	(3) Leg Dish Mount		135	Leg Dish Mount	
175	Platform - Fixed		135	Leg Dish Mount	
175	(3) SP3-5.2s	(3) 5/8"	135	(1) 6' H.P. Dish	(1) EW52
175		(9) 7/8"	135	(1) 4' H.P. Dish	(1) EW52
165	Leg Dish Mount		135	(1) 4' H.P. Dish	(1) EW52
165	Leg Dish Mount		125	Platform - Fixed	
165	Leg Dish Mount		125	(3) Tower Top Amplifiers	(9) 1/2"
165	(1) 6' H.P. Dish	(1) EW52	125	(12) 5960110s	(15) 1 5/8"
165	(1) 4' H.P. Dish	(1) EW52	110	(3) ATC-GD1V40s	
165	(1) 4' H.P. Dish	(1) EW52	100	(3) 3ft Sidearms	
150	Leg Dish Mount		100		(3) 7/8"
150	Leg Dish Mount		50	(3) 3ft Sidearms	
150	Leg Dish Mount		40	(3) ATC-GD1V40s	
150	(1) 6' H.P. Dish	(1) EW52	30	3ft Sidearm	
150	(1) 4' H.P. Dish	(1) EW52	30		(12) 1/2"

	Sabre Communications Corporation 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: 712) 258-6560 Fax: 712) 279-0214	Job: 15-8522-MEG Customer: BOONE COUNTY Site Name: County Drive, MO Description: 175' S3R Date: 3/17/2015
	<small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 539 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small>	By: REB

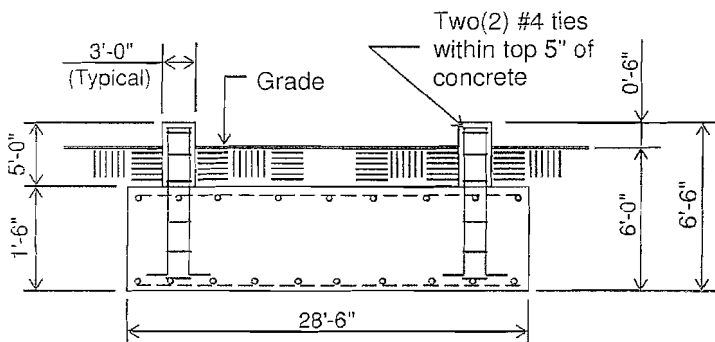
Customer: BOONE COUNTY

Site: County Drive, MO

175 ft. Model S3R Series SD Self Supporting Tower At
90 mph Wind with no ice and 40 mph Wind with 1 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



PLAN VIEW



ELEVATION VIEW

(49.05 Cu. Yds.)
(1 REQD.; NOT TO SCALE)

CAUTION: Center of tower is not in center of slab.

Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4500 PSI, in accordance with ACI 318-05.
- 2). Rebar to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical report by Crockett GTL Project No. G14076.1, dated January 30, 2015.

6). The foundation design assumes that the existing undocumented fill will be remediated in accordance with the geotechnical report.

7). The foundation is based on the following factored loads:

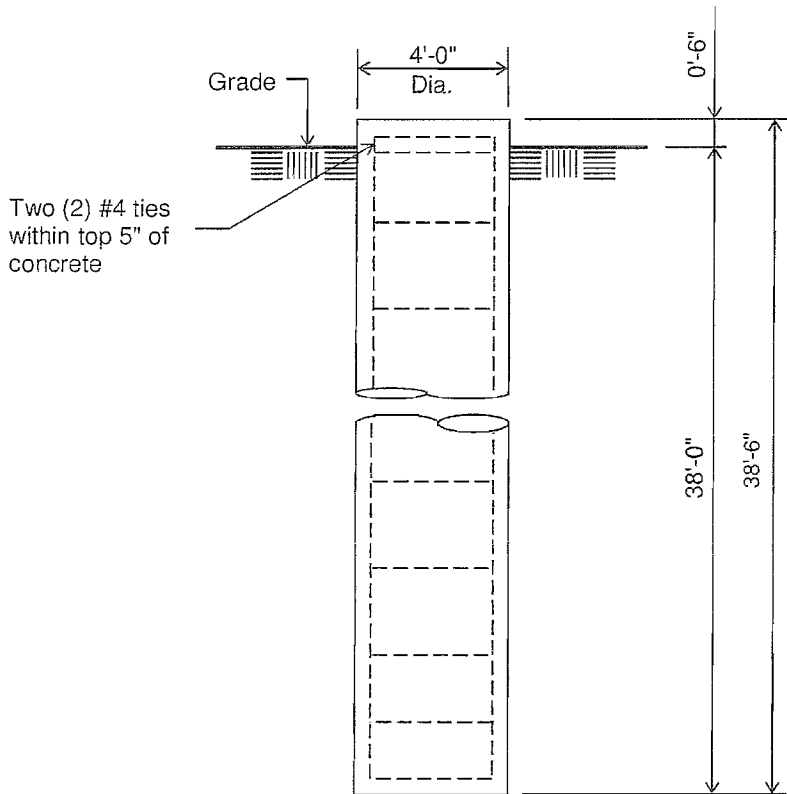
- Factored download (kips) = 50.5
- Factored overturn (kip-ft) = 5835.5
- Factored shear (kips) = 56.7

8). This is a design drawing only. Please see final construction drawings for all installation details.

Rebar Schedule per Mat and per Pier	
Pier	(14) #8 vertical rebar w/ hooks at bottom w/ #4 Rebar ties, two (2) within top 5" of pier then 12" C/C
Mat	(56) #8 horizontal rebar evenly spaced each way top and bottom. (224 total)

Customer: BOONE COUNTY
Site: County Drive, MO

175 ft. Model S3R Series SD Self Supporting Tower At
90 mph Wind with no ice and 40 mph Wind with 1 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



ELEVATION VIEW
(17.92 Cu. Yds. each)
(3 REQUIRED; NOT TO SCALE)

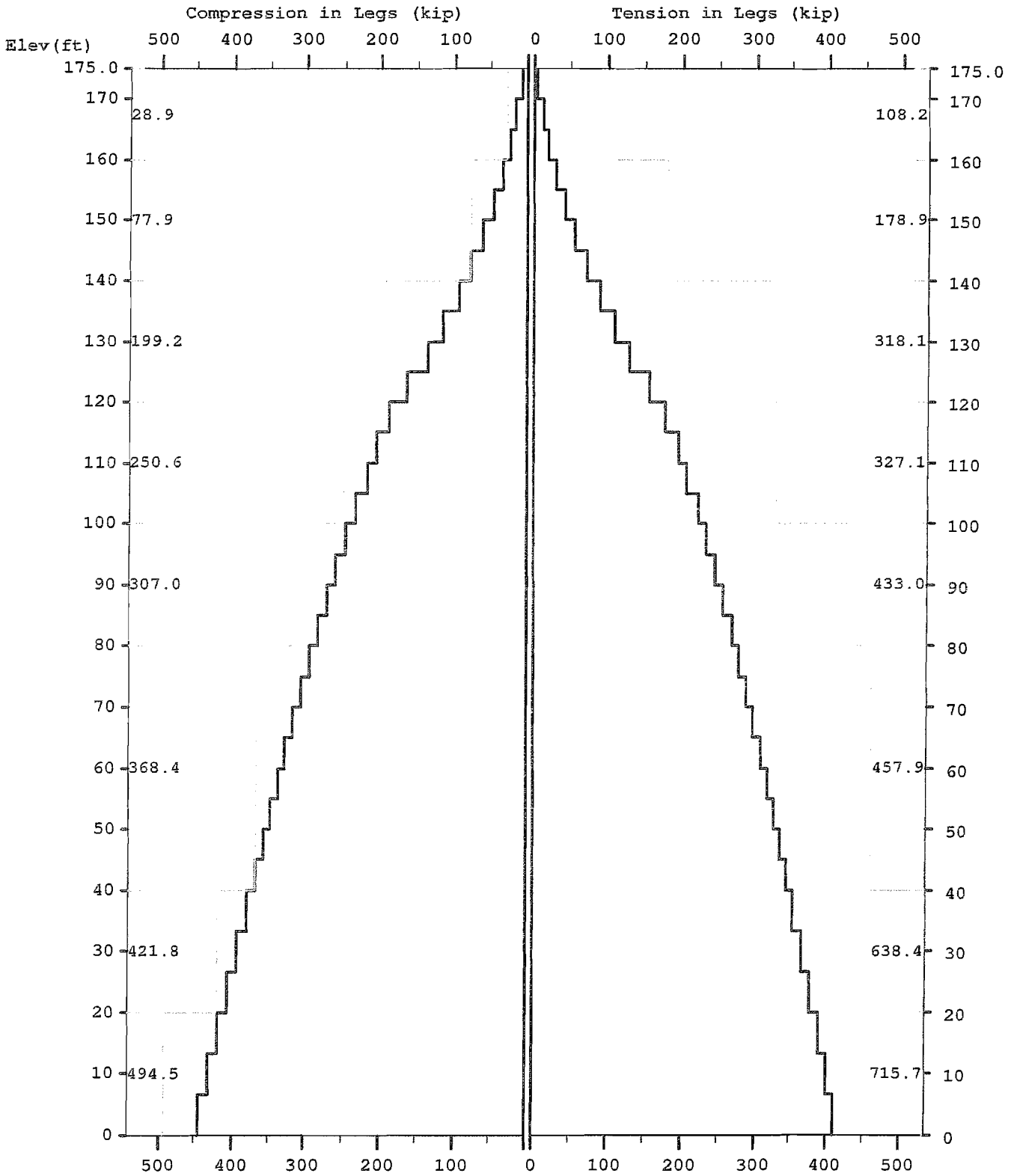
Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-05.
- 2). Rebars to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical report by Crockett GTL Project No. G14076.1, dated January 30, 2015.
- 6). See the geotechnical report for drilled pier installation requirements, if specified.
- 7). The foundation is based on the following factored loads:
Factored uplift (kips) = 414.55
Factored download (kips) = 451.56
Factored shear (kips) = 34.52
- 8). This is a design drawing only. Please see final construction drawings for all installation details.

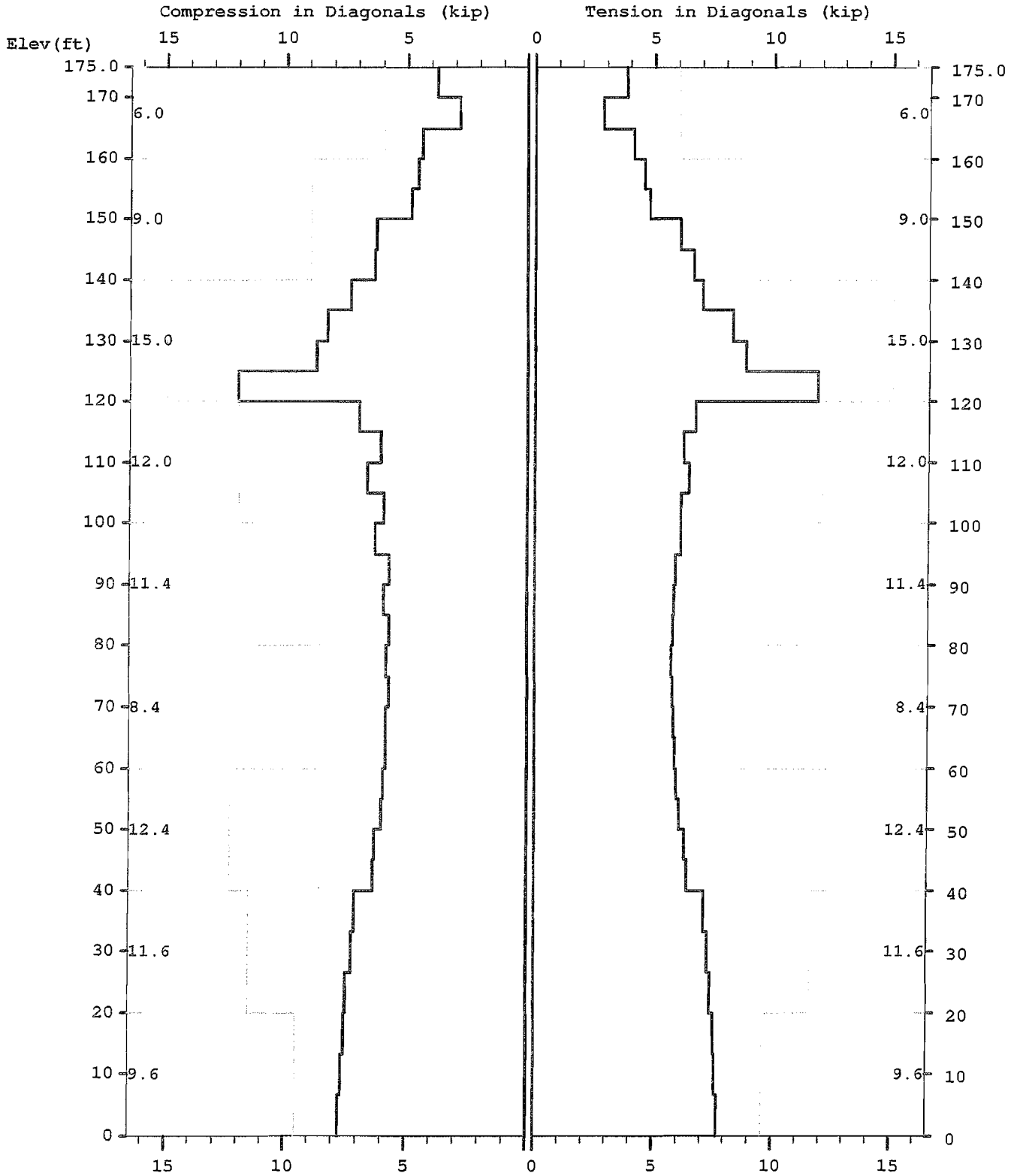
Rebar Schedule per Pier	
Pier	(20) #7 vertical rebar w/#4 ties, two (2) within top 5" of pier then 12" C/C

Information contained herein is the sole property of Sabre Towers & Poles, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Towers & Poles.

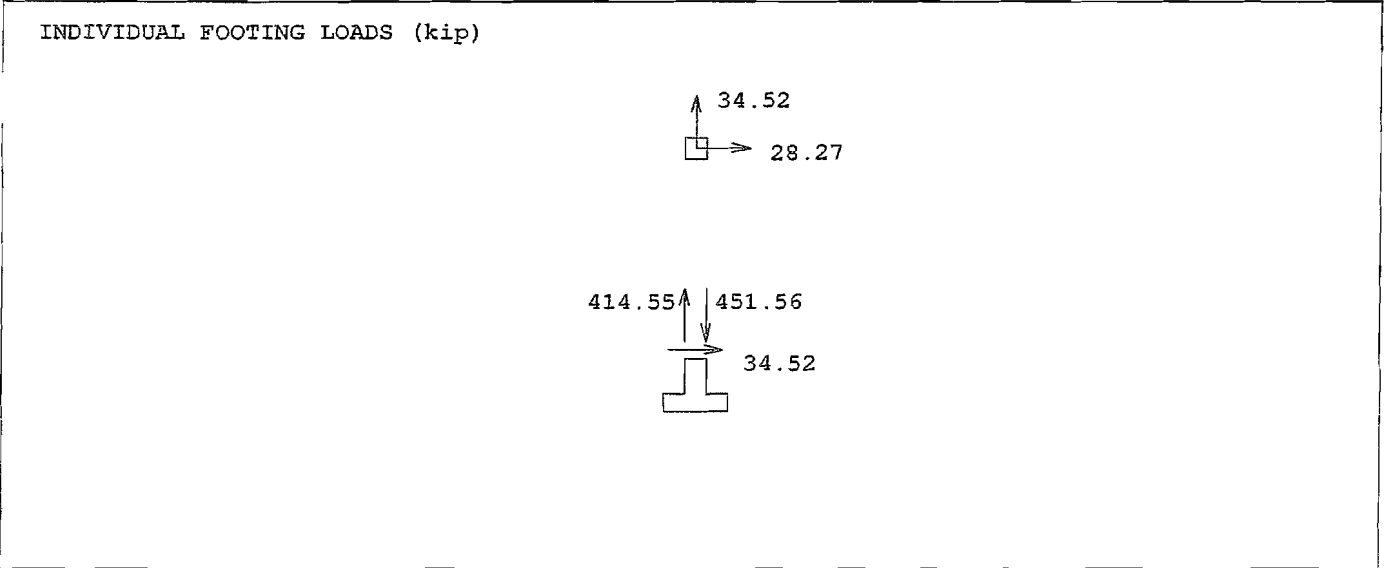
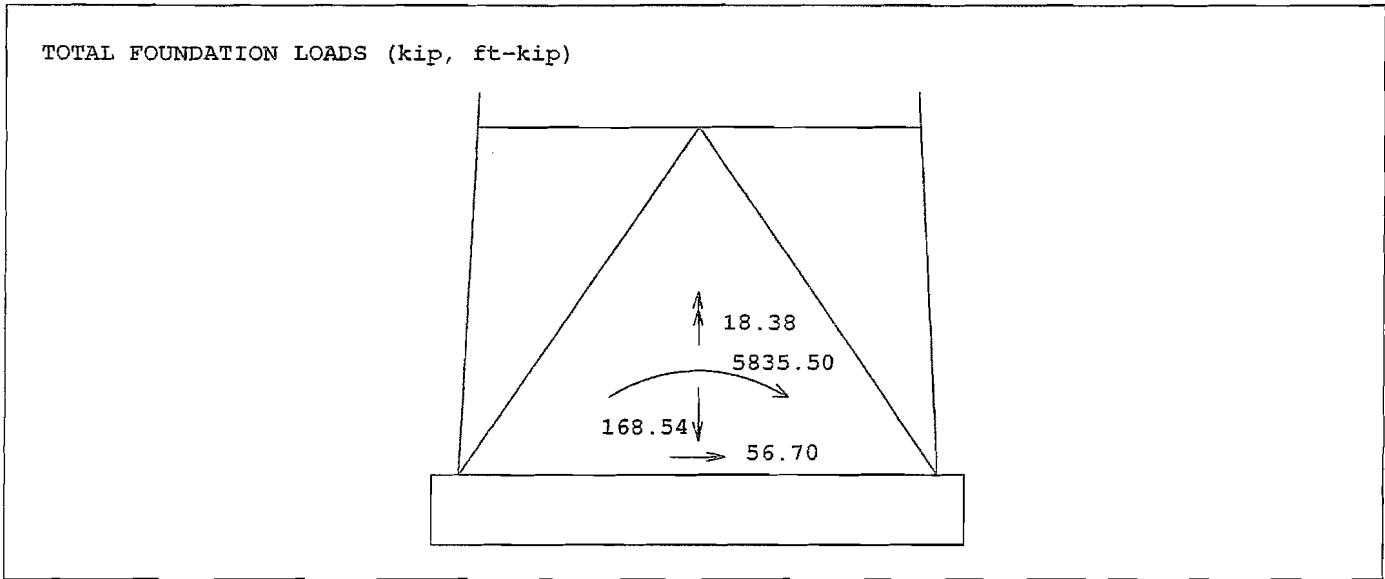
Maximum



Maximum



Maximum



Latticed Tower Analysis (Unguyed)
 Processed under license at:

(c)2013 Guymast Inc. 416-736-7453

Sabre Towers and Poles

on: 17 mar 2015 at: 15:41:39

MAST GEOMETRY (ft)

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.W..AT BOTTOM	F.W..AT TOP	TYPICAL PANEL HEIGHT
X	3	170.00	175.00	5.00	5.00	5.00
X	3	160.00	170.00	5.00	5.00	5.00
X	3	155.00	160.00	5.00	5.00	5.00
X	3	140.00	155.00	5.00	5.00	5.00
X	3	135.00	140.00	5.00	5.00	5.00
X	3	120.00	135.00	5.00	5.00	5.00
X	3	115.00	120.00	5.44	5.00	5.00
X	3	100.00	115.00	6.75	5.44	5.00
X	3	80.00	100.00	8.50	6.75	5.00
X	3	60.00	80.00	10.25	8.50	5.00
X	3	40.00	60.00	12.00	10.25	5.00
X	3	20.00	40.00	13.75	12.00	6.67
X	3	0.00	20.00	15.50	13.75	6.67

MEMBER PROPERTIES

MEMBER TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /deg
LE	160.00	175.00	2.405	0.438	29000.	0.0000116
LE	140.00	160.00	3.976	0.438	29000.	0.0000116
LE	120.00	140.00	7.069	0.438	29000.	0.0000116
LE	100.00	120.00	8.296	0.438	29000.	0.0000116
LE	80.00	100.00	9.621	0.438	29000.	0.0000116
LE	40.00	80.00	11.045	0.438	29000.	0.0000116
LE	20.00	40.00	14.186	0.438	29000.	0.0000116
LE	0.00	20.00	15.904	0.438	29000.	0.0000116
DI	160.00	175.00	0.484	0.626	29000.	0.0000116
DI	140.00	160.00	0.715	0.626	29000.	0.0000116
DI	120.00	140.00	1.152	0.626	29000.	0.0000116
DI	60.00	120.00	0.938	0.626	29000.	0.0000116
DI	40.00	60.00	1.188	0.626	29000.	0.0000116
DI	0.00	40.00	1.090	0.626	29000.	0.0000116
HO	170.00	175.00	0.484	0.626	29000.	0.0000116
HO	155.00	160.00	0.715	0.626	29000.	0.0000116
HO	135.00	140.00	1.152	0.626	29000.	0.0000116
HO	115.00	120.00	0.938	0.626	29000.	0.0000116

FACTORED MEMBER RESISTANCES

BOTTOM ELEV ft	TOP ELEV ft	LEGS		DIAGONALS		HORIZONTALS		INT BRACING	
		COMP kip	TENS kip	COMP kip	TENS kip	COMP kip	TENS kip	COMP kip	TENS kip
170.0	175.0	28.89	108.24	6.01	6.01	5.82	5.82	0.00	0.00
160.0	170.0	28.89	108.24	6.01	6.01	0.00	0.00	0.00	0.00
155.0	160.0	77.87	178.92	9.01	9.01	8.46	8.46	0.00	0.00
140.0	155.0	77.87	178.92	9.01	9.01	0.00	0.00	0.00	0.00
135.0	140.0	199.21	318.09	15.02	15.02	13.39	13.39	0.00	0.00
120.0	135.0	199.21	318.09	15.02	15.02	0.00	0.00	0.00	0.00
115.0	120.0	250.56	327.10	12.02	12.02	10.95	10.95	0.00	0.00
100.0	115.0	250.56	327.10	12.02	12.02	0.00	0.00	0.00	0.00
80.0	100.0	306.99	432.95	11.40	11.40	0.00	0.00	0.00	0.00
60.0	80.0	368.38	457.90	8.45	8.45	0.00	0.00	0.00	0.00
40.0	60.0	368.38	457.90	12.37	12.37	0.00	0.00	0.00	0.00
20.0	40.0	421.75	638.38	11.56	11.56	0.00	0.00	0.00	0.00
0.0	20.0	494.48	715.69	9.56	9.56	0.00	0.00	0.00	0.00

* Only 3 condition(s) shown in full

LOADING CONDITION A

93.8 mph wind with no ice. wind Azimuth: 0

MAST LOADING

=====

LOAD TYPE	ELEV ft	APPLY. RADIUS ft	LOAD. AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	185.0	0.00	0.0	0.0	1.13	0.72	0.00	0.00
C	180.3	0.00	0.0	0.0	0.52	0.06	0.00	0.00
C	175.0	0.00	0.0	0.0	2.22	2.88	0.00	0.00
C	167.5	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	150.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	130.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	125.0	0.00	0.0	0.0	6.81	4.57	0.00	0.00
C	110.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	110.0	0.00	0.0	0.0	1.01	0.72	0.00	0.00
C	100.0	0.00	0.0	0.0	0.43	0.54	0.00	0.00
C	90.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	70.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	50.0	0.00	0.0	0.0	0.37	0.54	0.00	0.00
C	50.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	40.0	0.00	0.0	0.0	0.82	0.72	0.00	0.00
C	30.0	0.00	0.0	0.0	0.08	0.02	0.00	0.00
C	30.0	0.00	0.0	0.0	0.25	0.18	0.00	0.00
C	10.0	0.00	0.0	0.0	0.07	0.02	0.00	0.00
D	175.0	0.00	358.9	0.0	0.17	0.07	0.03	-0.04
D	170.0	0.00	358.9	0.0	0.17	0.07	0.03	-0.04
D	170.0	0.00	358.9	0.0	0.16	0.07	0.03	-0.04
D	160.0	0.00	356.9	0.0	0.15	0.07	0.03	-0.04
D	160.0	0.00	356.9	0.0	0.17	0.10	0.03	-0.04
D	155.0	0.00	356.9	0.0	0.17	0.10	0.03	-0.04
D	155.0	0.00	356.7	0.0	0.16	0.10	0.03	-0.04
D	140.0	0.00	355.0	0.0	0.16	0.10	0.03	-0.04
D	140.0	0.00	355.3	0.0	0.17	0.17	0.03	-0.04
D	135.0	0.00	355.3	0.0	0.17	0.17	0.03	-0.04
D	135.0	0.00	354.0	0.0	0.16	0.15	0.04	-0.04
D	125.0	0.00	354.0	0.0	0.16	0.15	0.04	-0.04
D	125.0	0.00	47.5	0.0	0.19	0.18	0.04	0.01
D	120.0	0.00	47.5	0.0	0.19	0.18	0.04	0.01
D	120.0	0.00	47.3	0.0	0.20	0.20	0.03	0.01
D	115.0	0.00	47.3	0.0	0.20	0.20	0.03	0.01
D	115.0	0.00	46.8	0.0	0.19	0.19	0.03	0.00
D	110.0	0.00	46.8	0.0	0.19	0.19	0.03	0.00
D	110.0	0.00	48.2	0.0	0.19	0.19	0.04	0.02
D	100.0	0.00	47.9	0.0	0.20	0.19	0.04	0.01
D	100.0	0.00	53.2	0.0	0.20	0.21	0.05	0.02
D	80.0	0.00	53.4	0.0	0.20	0.22	0.05	0.03
D	80.0	0.00	53.9	0.0	0.20	0.24	0.06	0.04
D	60.0	0.00	54.1	0.0	0.20	0.24	0.07	0.04
D	60.0	0.00	54.4	0.0	0.21	0.26	0.08	0.05
D	40.0	0.00	54.5	0.0	0.21	0.27	0.08	0.05
D	40.0	0.00	54.7	0.0	0.20	0.29	0.09	0.06
D	33.3	0.00	54.7	0.0	0.20	0.29	0.09	0.06
D	33.3	0.00	53.3	0.0	0.21	0.29	0.07	0.02
D	26.7	0.00	53.3	0.0	0.21	0.29	0.07	0.02
D	26.7	0.00	51.2	0.0	0.22	0.30	0.05	-0.01
D	20.0	0.00	51.2	0.0	0.22	0.30	0.05	-0.01
D	20.0	0.00	51.5	0.0	0.20	0.32	0.06	-0.01
D	0.0	0.00	51.6	0.0	0.20	0.33	0.06	-0.01

ANTENNA LOADING

=====

.....ANTENNA..... TYPE	ELEV ft	AZI	ATTACHMENT	ANTENNA FORCES.....			
			RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD	175.0	120.0	4.4	120.0	-0.14	-0.14	0.08	-0.13
STD	175.0	0.0	4.4	0.0	0.47	0.00	0.08	0.00
STD	175.0	240.0	4.4	240.0	-0.14	0.14	0.08	0.13
HP	165.0	240.0	4.4	240.0	-0.38	0.23	0.20	0.22
HP	165.0	120.0	4.4	120.0	-0.38	-0.23	0.20	-0.22
HP	165.0	0.0	4.4	0.0	1.50	0.00	0.34	0.00
HP	150.0	240.0	4.4	240.0	-0.37	0.23	0.20	0.22
HP	150.0	120.0	4.4	120.0	-0.37	-0.23	0.20	-0.22
HP	150.0	0.0	4.4	0.0	1.47	0.00	0.34	0.00
HP	135.0	240.0	4.4	240.0	-0.36	0.22	0.20	0.21
HP	135.0	120.0	4.4	120.0	-0.36	-0.22	0.20	-0.21
HP	135.0	0.0	4.4	0.0	1.44	0.00	0.34	0.00

SUPPRESS PRINTING
=====

LOADS INPUT	...FOR THIS LOADING..		MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

LOADING CONDITION M =====

93.8 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING
=====

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	185.0	0.00	0.0	0.0	1.13	0.54	0.00	0.00
C	180.3	0.00	0.0	0.0	0.52	0.04	0.00	0.00
C	175.0	0.00	0.0	0.0	2.22	2.16	0.00	0.00
C	167.5	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	150.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	130.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	125.0	0.00	0.0	0.0	6.81	3.43	0.00	0.00
C	110.0	0.00	0.0	0.0	0.07	0.01	0.00	0.00
C	110.0	0.00	0.0	0.0	1.01	0.54	0.00	0.00
C	100.0	0.00	0.0	0.0	0.43	0.41	0.00	0.00
C	90.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	70.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	50.0	0.00	0.0	0.0	0.37	0.41	0.00	0.00
C	50.0	0.00	0.0	0.0	0.06	0.01	0.00	0.00
C	40.0	0.00	0.0	0.0	0.82	0.54	0.00	0.00
C	30.0	0.00	0.0	0.0	0.08	0.02	0.00	0.00
C	30.0	0.00	0.0	0.0	0.25	0.14	0.00	0.00
C	10.0	0.00	0.0	0.0	0.07	0.02	0.00	0.00
D	175.0	0.00	358.9	0.0	0.17	0.05	0.02	-0.04
D	170.0	0.00	358.9	0.0	0.17	0.05	0.02	-0.04
D	170.0	0.00	358.9	0.0	0.16	0.05	0.02	-0.04
D	160.0	0.00	356.9	0.0	0.15	0.05	0.02	-0.04
D	160.0	0.00	356.9	0.0	0.17	0.08	0.02	-0.04
D	155.0	0.00	356.9	0.0	0.17	0.08	0.02	-0.04
D	155.0	0.00	356.7	0.0	0.16	0.07	0.02	-0.04
D	140.0	0.00	355.0	0.0	0.16	0.07	0.03	-0.04
D	140.0	0.00	355.3	0.0	0.17	0.12	0.02	-0.04
D	135.0	0.00	355.3	0.0	0.17	0.12	0.02	-0.04
D	135.0	0.00	354.0	0.0	0.16	0.11	0.03	-0.04
D	125.0	0.00	354.0	0.0	0.16	0.11	0.03	-0.04
D	125.0	0.00	47.5	0.0	0.19	0.14	0.03	0.01
D	120.0	0.00	47.5	0.0	0.19	0.14	0.03	0.01
D	120.0	0.00	47.3	0.0	0.20	0.15	0.03	0.01
D	110.0	0.00	46.8	0.0	0.19	0.14	0.02	0.00
D	110.0	0.00	48.2	0.0	0.19	0.14	0.03	0.02
D	100.0	0.00	47.9	0.0	0.20	0.15	0.03	0.01
D	100.0	0.00	53.2	0.0	0.20	0.16	0.04	0.02
D	80.0	0.00	53.4	0.0	0.20	0.16	0.04	0.03
D	80.0	0.00	53.9	0.0	0.20	0.18	0.05	0.04
D	60.0	0.00	54.1	0.0	0.20	0.18	0.05	0.04
D	60.0	0.00	54.4	0.0	0.21	0.19	0.06	0.05
D	40.0	0.00	54.5	0.0	0.21	0.20	0.06	0.05
D	40.0	0.00	54.7	0.0	0.20	0.21	0.07	0.06
D	33.3	0.00	54.7	0.0	0.20	0.21	0.07	0.06
D	33.3	0.00	53.3	0.0	0.21	0.22	0.05	0.02
D	26.7	0.00	53.3	0.0	0.21	0.22	0.05	0.02
D	26.7	0.00	51.2	0.0	0.22	0.23	0.04	-0.01
D	20.0	0.00	51.2	0.0	0.22	0.23	0.04	-0.01
D	20.0	0.00	51.5	0.0	0.20	0.24	0.05	-0.01
D	0.0	0.00	51.6	0.0	0.20	0.25	0.05	-0.01

ANTENNA LOADING
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.....ANTENNA..... TYPE	ELEV ft	AZI	ATTACHMENT	ANTENNA FORCES.....			
			RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip

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STD	175.0	120.0	4.4	120.0	-0.14	-0.14	0.06	-0.13
STD	175.0	0.0	4.4	0.0	0.47	0.00	0.06	0.00
STD	175.0	240.0	4.4	240.0	-0.14	0.14	0.06	0.13
HP	165.0	240.0	4.4	240.0	-0.38	0.23	0.15	0.22
HP	165.0	120.0	4.4	120.0	-0.38	-0.23	0.15	-0.22
HP	165.0	0.0	4.4	0.0	1.50	0.00	0.25	0.00
HP	150.0	240.0	4.4	240.0	-0.37	0.23	0.15	0.22
HP	150.0	120.0	4.4	120.0	-0.37	-0.23	0.15	-0.22
HP	150.0	0.0	4.4	0.0	1.47	0.00	0.25	0.00
HP	135.0	240.0	4.4	240.0	-0.36	0.22	0.15	0.21
HP	135.0	120.0	4.4	120.0	-0.36	-0.22	0.15	-0.21
HP	135.0	0.0	4.4	0.0	1.44	0.00	0.25	0.00

SUPPRESS PRINTING

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LOADS INPUT	...FOR THIS LOADING..		MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
	no	yes	yes	yes	no	no	no

=====

LOADING CONDITION Y

44.7 mph wind with 1 ice. wind Azimuth: 0°

MAST LOADING

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LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	185.0	0.00	0.0	0.0	1.20	2.50	0.00	0.00
C	180.3	0.00	0.0	0.0	0.41	0.43	0.00	0.00
C	175.0	0.00	0.0	0.0	0.84	6.42	0.00	0.00
C	167.5	0.00	0.0	0.0	0.03	0.13	0.00	0.00
C	150.0	0.00	0.0	0.0	0.03	0.13	0.00	0.00
C	130.0	0.00	0.0	0.0	0.03	0.13	0.00	0.00
C	125.0	0.00	0.0	0.0	1.71	12.11	0.00	0.00
C	110.0	0.00	0.0	0.0	0.03	0.12	0.00	0.00
C	110.0	0.00	0.0	0.0	1.03	2.41	0.00	0.00
C	100.0	0.00	0.0	0.0	0.14	1.38	0.00	0.00
C	90.0	0.00	0.0	0.0	0.03	0.12	0.00	0.00
C	70.0	0.00	0.0	0.0	0.02	0.12	0.00	0.00
C	50.0	0.00	0.0	0.0	0.12	1.32	0.00	0.00
C	50.0	0.00	0.0	0.0	0.02	0.12	0.00	0.00
C	40.0	0.00	0.0	0.0	0.76	2.25	0.00	0.00
C	30.0	0.00	0.0	0.0	0.03	0.12	0.00	0.00
C	30.0	0.00	0.0	0.0	0.08	0.43	0.00	0.00
C	10.0	0.00	0.0	0.0	0.02	0.11	0.00	0.00
D	175.0	0.00	353.7	0.0	0.04	0.47	0.22	0.00
D	170.0	0.00	353.7	0.0	0.04	0.47	0.22	0.00
D	170.0	0.00	353.7	0.0	0.03	0.41	0.22	0.00
D	165.0	0.00	353.7	0.0	0.03	0.41	0.22	0.00
D	165.0	0.00	352.4	0.0	0.03	0.42	0.25	0.00
D	160.0	0.00	352.4	0.0	0.03	0.42	0.25	0.00
D	160.0	0.00	352.4	0.0	0.04	0.52	0.24	0.00
D	155.0	0.00	352.4	0.0	0.04	0.52	0.24	0.00
D	155.0	0.00	352.3	0.0	0.03	0.45	0.25	0.00
D	140.0	0.00	351.9	0.0	0.03	0.45	0.25	0.00
D	140.0	0.00	352.0	0.0	0.04	0.58	0.25	0.00
D	135.0	0.00	352.0	0.0	0.04	0.58	0.25	0.00
D	135.0	0.00	351.6	0.0	0.03	0.51	0.26	0.00
D	125.0	0.00	351.6	0.0	0.03	0.51	0.26	0.00
D	125.0	0.00	44.3	0.0	0.04	0.66	0.21	0.00
D	120.0	0.00	44.3	0.0	0.04	0.66	0.21	0.00
D	120.0	0.00	44.0	0.0	0.04	0.74	0.20	0.00
D	115.0	0.00	44.0	0.0	0.04	0.74	0.20	0.00
D	115.0	0.00	43.4	0.0	0.04	0.68	0.18	0.00
D	110.0	0.00	43.4	0.0	0.04	0.68	0.18	0.00
D	110.0	0.00	45.1	0.0	0.04	0.68	0.24	0.01
D	105.0	0.00	45.1	0.0	0.04	0.68	0.24	0.01
D	105.0	0.00	44.7	0.0	0.04	0.69	0.22	0.01
D	100.0	0.00	44.7	0.0	0.04	0.69	0.22	0.01
D	100.0	0.00	47.6	0.0	0.04	0.72	0.28	0.01
D	95.0	0.00	47.6	0.0	0.04	0.72	0.28	0.01

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D	95.0	0.00	47.3	0.0	0.04	0.73	0.26	0.01
D	90.0	0.00	47.3	0.0	0.04	0.73	0.26	0.01
D	90.0	0.00	48.1	0.0	0.04	0.73	0.32	0.01
D	85.0	0.00	48.1	0.0	0.04	0.73	0.32	0.01
D	85.0	0.00	47.9	0.0	0.04	0.74	0.30	0.01
D	80.0	0.00	47.9	0.0	0.04	0.74	0.30	0.01
D	80.0	0.00	48.6	0.0	0.04	0.77	0.36	0.01
D	75.0	0.00	48.6	0.0	0.04	0.77	0.36	0.01
D	75.0	0.00	48.4	0.0	0.04	0.78	0.34	0.01
D	70.0	0.00	48.4	0.0	0.04	0.78	0.34	0.01
D	70.0	0.00	49.0	0.0	0.04	0.78	0.39	0.01
D	60.0	0.00	48.8	0.0	0.04	0.79	0.38	0.01
D	60.0	0.00	49.3	0.0	0.04	0.83	0.43	0.01
D	50.0	0.00	49.1	0.0	0.04	0.84	0.41	0.01
D	50.0	0.00	49.5	0.0	0.04	0.84	0.46	0.01
D	40.0	0.00	49.4	0.0	0.04	0.85	0.44	0.01
D	40.0	0.00	49.8	0.0	0.04	0.84	0.49	0.01
D	33.3	0.00	49.8	0.0	0.04	0.84	0.49	0.01
D	33.3	0.00	44.2	0.0	0.04	0.89	0.32	0.01
D	26.7	0.00	44.2	0.0	0.04	0.89	0.32	0.01
D	26.7	0.00	29.1	0.0	0.04	0.94	0.17	0.00
D	20.0	0.00	29.1	0.0	0.04	0.94	0.17	0.00
D	20.0	0.00	30.6	0.0	0.04	0.94	0.19	0.00
D	13.3	0.00	30.6	0.0	0.04	0.94	0.19	0.00
D	13.3	0.00	30.8	0.0	0.04	0.95	0.20	0.00
D	6.7	0.00	30.8	0.0	0.04	0.95	0.20	0.00
D	6.7	0.00	29.3	0.0	0.04	1.07	0.28	0.00
D	0.0	0.00	29.3	0.0	0.04	1.07	0.28	0.00

ANTENNA LOADING

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.....ANTENNA.....ATTACHMENT.....	ANTENNA FORCES.....					
	TYPE	ELEV ft	RAZ	RAZ	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD	175.0	120.0	4.4	120.0	-0.02	-0.02	0.31	-0.03
STD	175.0	0.0	4.4	0.0	0.08	0.00	0.31	0.00
STD	175.0	240.0	4.4	240.0	-0.02	0.02	0.31	0.03
HP	165.0	240.0	4.4	240.0	-0.06	0.04	1.14	0.04
HP	165.0	120.0	4.4	120.0	-0.06	-0.04	1.14	-0.04
HP	165.0	0.0	4.4	0.0	0.22	0.00	1.63	0.00
HP	150.0	240.0	4.4	240.0	-0.06	0.04	1.13	0.04
HP	150.0	120.0	4.4	120.0	-0.06	-0.04	1.13	-0.04
HP	150.0	0.0	4.4	0.0	0.21	0.00	1.62	0.00
HP	135.0	240.0	4.4	240.0	-0.06	0.03	1.12	0.04
HP	135.0	120.0	4.4	120.0	-0.06	-0.03	1.12	-0.04
HP	135.0	0.0	4.4	0.0	0.21	0.00	1.60	0.00

SUPPRESS PRINTING

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LOADS INPUT	...FOR THIS LOADING..			MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes		no	no	no	no

MAXIMUM MAST DISPLACEMENTS:

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ELEV ft	-----DEFLECTIONS (ft)-----				--TILTS (DEG)---		TWIST DEG
	NORTH	EAST	DOWN		NORTH	EAST	
175.0	2.481 G	-2.039 D	0.028 G		1.627 G	-1.341 D	-0.244 V
170.0	2.336 G	-1.919 D	0.025 G		1.620 G	-1.334 D	-0.244 V
165.0	2.193 G	-1.802 D	0.023 G		1.601 G	-1.317 D	-0.244 V
160.0	2.052 G	-1.686 D	0.021 G		1.571 G	-1.290 D	-0.232 V
155.0	1.914 G	-1.572 D	0.019 G		1.543 G	-1.266 D	-0.224 V
150.0	1.779 G	-1.463 D	0.018 G		1.504 G	-1.233 D	-0.217 V
145.0	1.646 G	-1.353 D	0.016 e		1.454 G	-1.190 D	-0.201 V
140.0	1.520 G	-1.250 D	0.015 e		1.389 G	-1.136 D	-0.186 V
135.0	1.398 G	-1.151 D	0.015 e		1.344 G	-1.100 D	-0.177 V
130.0	1.282 G	-1.055 D	0.014 e		1.290 G	-1.055 D	-0.163 V
125.0	1.169 G	-0.963 D	0.014 e		1.225 G	-1.003 D	-0.149 V
120.0	1.062 G	-0.876 D	0.013 e		1.148 G	-0.941 D	-0.135 V
115.0	0.962 G	-0.794 D	0.013 e		1.077 G	-0.883 D	-0.119 V
110.0	0.871 G	-0.719 D	0.012 e		1.007 G	-0.827 D	-0.107 V
105.0	0.783 G	-0.647 D	0.012 e		0.937 G	-0.770 D	0.097 X
100.0	0.704 G	-0.581 D	0.011 e		0.868 G	-0.714 D	0.092 X
95.0	0.628 G	-0.519 D	0.011 e		0.808 G	-0.665 D	0.086 X

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90.0	0.559	G	-0.462	D	0.010	e	0.750	G	-0.617	D	0.081	X
85.0	0.494	G	-0.408	D	0.010	e	0.691	G	-0.569	D	0.076	X
80.0	0.435	G	-0.359	D	0.009	e	0.634	G	-0.522	D	0.071	X
75.0	0.379	G	-0.313	D	0.009	e	0.585	G	-0.482	D	0.066	X
70.0	0.328	G	-0.272	D	0.008	e	0.536	G	-0.442	D	0.061	X
65.0	0.281	G	-0.233	D	0.008	e	0.488	G	-0.402	D	0.056	X
60.0	0.238	G	-0.198	D	0.007	e	0.441	G	-0.363	D	0.051	X
55.0	0.200	G	-0.166	D	0.006	e	0.393	G	-0.324	D	0.047	X
50.0	0.166	G	-0.138	D	0.006	e	0.347	G	-0.286	D	0.042	X
45.0	0.135	G	-0.113	D	0.005	e	0.301	G	-0.248	D	0.038	X
40.0	0.109	G	-0.091	D	0.005	e	0.255	G	-0.211	D	0.034	X
33.3	0.079	G	-0.066	D	0.004	e	0.209	G	-0.172	D	0.028	X
26.7	0.054	G	-0.045	D	0.003	e	0.163	G	-0.135	D	0.022	X
20.0	0.034	G	-0.028	D	0.002	a	0.118	G	-0.097	D	0.017	X
13.3	0.019	G	-0.016	D	0.002	d	0.078	G	-0.065	D	0.011	X
6.7	0.006	G	-0.005	D	0.001	a	0.039	G	-0.032	D	0.006	X
0.0	0.000	A	0.000	A	0.000	A	0.000	A	0.000	A	0.000	A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

ELEV ft	AZI deg	TYPE *BEAM DEFLECTIONS (deg).....							
			PITCH	YAW	ROLL	TOTAL				
175.0	120.0	STD	1.566	L	0.250	P	-1.433	C	1.572	L
175.0	0.0	STD	1.341	D	0.243	V	-1.627	G	1.363	D
175.0	240.0	STD	-1.537	B	0.250	V	-1.461	K	1.549	B
165.0	240.0	HP	-1.513	B	0.251	V	-1.436	K	1.524	B
165.0	120.0	HP	1.541	L	0.251	P	-1.408	C	1.548	L
165.0	0.0	HP	1.317	D	0.243	V	-1.601	G	1.339	J
150.0	240.0	HP	-1.420	B	0.222	V	-1.346	K	1.430	B
150.0	120.0	HP	1.449	L	0.222	P	-1.318	C	1.455	L
150.0	0.0	HP	1.233	D	0.216	V	-1.504	G	1.251	D
135.0	240.0	HP	-1.268	B	0.181	V	-1.203	K	1.277	B
135.0	120.0	HP	1.297	L	0.181	P	-1.174	C	1.303	L
135.0	0.0	HP	1.100	D	0.176	V	-1.344	G	1.114	D

MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE		
175.0	-----	-----	1.27	D	0.00	A
170.0	3.72	U	3.80	X	0.00	A
165.0	11.90	M	2.83	G	0.00	A
160.0	19.81	M	4.11	R	0.00	A
155.0	30.27	M	4.54	M	0.00	A
150.0	42.86	M	4.77	F	0.00	A
145.0	56.38	M	6.07	R	0.00	A
140.0	72.35	M	6.63	L	0.00	A
135.0	89.14	M	7.01	M	0.00	A
130.0	109.66	M	8.29	G	0.00	A
125.0	129.57	M	8.82	A	0.00	A
120.0	155.10	M	11.84	R	0.00	A
115.0	177.92	M	6.75	M	0.00	A
110.0	194.38	M	6.23	G	0.00	A
105.0	206.61	M	6.45	M	0.00	A
100.0	221.31	M	6.09	G	0.00	A
95.0	232.75	M	6.10	M	0.00	A
90.0	245.71	M	5.90	G	0.00	A
85.0	256.40	M	5.81	M	0.00	A
80.0	267.92	M	5.78	F	0.00	A
	277.86	M	5.73	R		

75.0	-----			0.11 A	0.00 A
	288.31 M	5.79 F			
70.0	-----			0.04 A	0.00 A
	297.67 M	5.81 R			
65.0	-----			0.09 A	0.00 A
	307.41 M	5.89 F			
60.0	-----			0.04 A	0.00 A
	316.32 M	5.92 R			
55.0	-----			0.08 A	0.00 A
	325.50 M	6.04 F			
50.0	-----			0.05 A	0.00 A
	334.00 M	6.25 R			
45.0	-----			0.08 A	0.00 A
	343.04 M	6.37 F			
40.0	-----			0.04 A	0.00 A
	352.81 M	7.09 R			
33.3	-----			0.09 A	0.00 A
	364.89 M	7.27 F			
26.7	-----			0.04 A	0.00 A
	376.11 M	7.39 R			
20.0	-----			0.07 A	0.00 A
	387.75 M	7.53 F			
13.3	-----			0.01 S	0.00 A
	398.62 M	7.60 R			
6.7	-----			0.06 A	0.00 A
	409.71 M	7.73 F			
0.0	-----			0.00 A	0.00 A

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MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

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ELEV ft	LEGS	DIAG	HORIZ	BRACE
175.0	-----		-1.54 I	0.00 A
	-7.27 i	-3.78 F		
170.0	-----		-0.07 P	0.00 A
	-14.77 G	-2.84 X		
165.0	-----		-0.04 W	0.00 A
	-23.18 G	-4.41 L		
160.0	-----		-0.65 S	0.00 A
	-34.23 G	-4.60 G		
155.0	-----		-0.16 S	0.00 A
	-47.23 G	-4.86 L		
150.0	-----		-0.07 J	0.00 A
	-61.47 G	-6.30 L		
145.0	-----		-0.17 S	0.00 A
	-78.20 G	-6.35 R		
140.0	-----		-0.94 S	0.00 A
	-94.66 G	-7.37 G		
135.0	-----		-0.22 S	0.00 A
	-116.70 G	-8.30 M		
130.0	-----		-0.02 A	0.00 A
	-136.94 G	-8.74 S		
125.0	-----		-0.19 S	0.00 A
	-165.37 G	-12.03 L		
120.0	-----		-0.52 Y	0.00 A
	-188.59 G	-6.96 G		
115.0	-----		-0.28 S	0.00 A
	-206.11 G	-6.09 M		
110.0	-----		-0.01 S	0.00 A
	-219.03 G	-6.64 G		
105.0	-----		-0.22 S	0.00 A
	-234.70 G	-5.96 M		
100.0	-----		-0.03 S	0.00 A
	-246.94 G	-6.29 G		
95.0	-----		-0.16 S	0.00 A
	-260.91 G	-5.77 R		
90.0	-----		-0.03 S	0.00 A
	-272.26 G	-5.99 G		
85.0	-----		-0.13 S	0.00 A
	-284.76 G	-5.74 R		
80.0	-----		-0.03 S	0.00 A
	-295.50 G	-5.85 G		
75.0	-----		-0.10 S	0.00 A
	-307.00 G	-5.76 R		
70.0	-----		-0.04 S	0.00 A
	-317.26 G	-5.87 F		
65.0	-----		-0.08 S	0.00 A
	-328.06 G	-5.87 R		

60.0	-----			-0.04 S	0.00 A
	-337.95 G	-5.97 F			
55.0	-----			-0.07 S	0.00 A
	-348.26 G	-6.02 F			
50.0	-----			-0.04 S	0.00 A
	-358.15 G	-6.31 F			
45.0	-----			-0.07 S	0.00 A
	-368.39 G	-6.35 F			
40.0	-----			-0.03 S	0.00 A
	-379.89 G	-7.16 F			
33.3	-----			-0.08 S	0.00 A
	-393.76 G	-7.25 R			
26.7	-----			-0.03 S	0.00 A
	-406.68 G	-7.45 F			
20.0	-----			-0.07 S	0.00 A
	-420.15 G	-7.52 R			
13.3	-----			-0.01 A	0.00 A
	-432.83 G	-7.65 F			
6.7	-----			-0.05 S	0.00 A
	-445.82 G	-7.74 F			
0.0	-----			0.00 A	0.00 A

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

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-----LOAD-----		---COMPONENTS---		TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
34.52 G	28.27 K	451.56 G	-414.55 M	34.52 G

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

=====

-----HORIZONTAL-----			DOWN	-----OVERTURNING-----			TORSION
NORTH	EAST	TOTAL		NORTH	EAST	TOTAL	
		@				@	
		0.0				0.0	
56.7	-48.0	56.7	168.5	5835.5	-4838.6	5835.5	18.4
S	P	S	d	G	D	G	X

=====

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

Tower Description 175' S3R Series SD
 Customer BOONE COUNTY
 Project Number 15-8522-MEG
 Date 3/17/2015
 Engineer REB

Overall Loads:			
Factored Moment (ft-kips)	5835.50	Anchor Bolt Count (per leg)	6
Factored Axial (kips)	50.50		
Factored Shear (kips)	56.70		
Individual Leg Loads:			Tower eccentric from mat (ft)= 1.25
Factored Uplift (kips)	414.55		
Factored Download (kips)	451.56		
Factored Shear (kips)	34.52		
Width of Tower (ft)	15.5	Allowable Bearing Pressure (ksf)	2.50
Ultimate Bearing Pressure	5.00	Safety Factor	2.00
Bearing Φ_s	0.75		
Bearing Design Strength (ksf)	3.75	Max. Factored Net Bearing Pressure (ksf)	3.56
Water Table Below Grade (ft)	999		
Width of Mat (ft)	28.5	Minimum Mat Width (ft)	21.17
Thickness of Mat (ft)	1.5		
Depth to Bottom of Slab (ft)	6		
Bolt Circle Diameter (in)	10.25		
Top of Concrete to Top of Bottom Threads (in)	58		
Diameter of Pier (ft)	3	Minimum Pier Diameter (ft)	2.35
Ht. of Pier Above Ground (ft)	0.5	Equivalent Square b (ft)	2.66
Ht. of Pier Below Ground (ft)	4.5		
Quantity of Bars in Mat	56		
Bar Diameter in Mat (in)	1		
Area of Bars in Mat (in ²)	43.98		
Spacing of Bars in Mat (in)	6.09	Recommended Spacing (in)	6 to 12
Quantity of Bars Pier	14		
Bar Diameter in Pier (in)	1		
Tie Bar Diameter in Pier (in)	0.5		
Spacing of Ties (in)	12		
Area of Bars in Pier (in ²)	11.00	Minimum Pier A _s (in ²)	5.09
Spacing of Bars in Pier (in)	6.23	Recommended Spacing (in)	5 to 12
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.12		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd ³)	49.05		

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES (CONTINUED)

Two-Way Shear:

Average d (in)	14		
ϕV_c (kips)	501.6	V_u (kips)	439.9
$\phi V_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}b_o d$	752.4		
$\phi V_c = \phi(\alpha_s d/b_o + 2)f'_c{}^{1/2}b_o d$	697.8		
$\phi V_c = \phi 4f'_c{}^{1/2}b_o d$	501.6		
Shear perimeter, b_o (in)	157.08		
β_c	1		

Stability:

Overturning Design Strength (ft-k)	8461.5	Factored Overturning Moment (ft-k)	6204.1
------------------------------------	--------	------------------------------------	--------

One-Way Shear:

ϕV_c (kips)	546.0	V_u (kips)	379.9
Pier Design:			
Design Tensile Strength (kips)	593.8	T_u (kips)	414.6
ϕV_n (kips)	70.0	V_u (kips)	34.5
$\phi V_c = \phi 2(1 + N_u/(500A_g))f'_c{}^{1/2}b_w d$	21.9		
V_s (kips)	56.5	*** V_s max = $4 f'_c{}^{1/2}b_w d$ (kips)	278.2
Maximum Spacing (in)	13.01	(Only if Shear Ties are Required)	
Actual Hook Development (in)	13.00	Req'd Hook Development l_{dh} (in)	12.52

*** Ref. ACI 11.5.5 & 11.5.6.3

Anchor Bolt Pull-Out:

$\phi P_c = \phi \lambda (2/3)f'_c{}^{1/2}(2.8A_{SLOPE} + 4A_{FLAT})$	153.3	P_u (kips)	414.6
Pier Rebar Development Length (in)	46.13	Required Length of Development (in)	31.22

Flexure in Slab:

ϕM_n (ft-kips)	2571.3	M_u (ft-kips)	2553.0
a (in)	2.02		
Steel Ratio	0.00919		
β_1	0.825		
Maximum Steel Ratio (ρ_t)	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	115.26	Required Development in Pad (in)	17.93

Condition	1 is OK, 0 Fails
Minimum Mat Width	1
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Two-Way Shear	1
Overturning	1
Anchor Bolt Pull-Out	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Interaction Diagram Visual Check	1
One-Way Shear	1
Hook Development	1
Minimum Mat Depth	1

DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES

Tower Description 175' S3R Series SD
 Customer Name BOONE COUNTY
 Job Number 15-8522-MEG
 Date 3/17/2015
 Engineer REB

Factored Uplift (kips)	414.55	Anchor Bolt Count (per leg)	6
Factored Download (kips)	451.56		
Factored Shear (kips)	34.52		
Ultimate Bearing Pressure	24		
Bearing Φ s	0.75		
Bearing Design Strength (ksf)	18		
Water Table Below Grade (ft)	999		
Bolt Circle Diameter (in)	10.25		
Top of Concrete to Top of Bottom Threads (in)	58		
Pier Diameter (ft)	4	Minimum Pier Diameter (ft)	2.35
Ht. Above Ground (ft)	0.5		
Pier Length Below Ground (ft)	38		
Quantity of Bars	20		
Bar Diameter (in)	0.875		
Tie Bar Diameter (in)	0.5		
Spacing of Ties (in)	12		
Area of Bars (in ²)	12.03	Minimum Area of Steel (in ²)	9.05
Spacing of Bars (in)	6.30		
f'c (ksi)	4		
fy (ksi)	60		
Unit Wt. of Concrete (kcf)	0.15		
Download Friction Φ s	0.75		
Uplift Friction Φ s	0.75		
Volume of Concrete (yd ³)	17.92		
Skin Friction Factor for Uplift	1	Length to Ignore Download (ft)	0
Ignore Bottom Length in Download?	<input type="checkbox"/>		

Depth at Bottom of Layer (ft)	Ult. Skin Friction (ksf)	(Ult. Skin Friction)*(Uplift Factor)	γ (kcf)
3	0.00	0.00	0.11
9	0.40	0.40	0.11
10	0.16	0.16	0.11
28	1.10	1.10	0.11
40	1.60	1.60	0.11
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0

Download:

Factored Net Weight of Concrete (kips)	1.1		
Bearing Design Strength (kips)	226.2		
Skin Friction Design Strength (kips)	361.5		
Download Design Strength (kips)	587.7	Factored Net Download (kips)	452.7

DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES (CONTINUED)

Uplift:

Nominal Skin Friction (kips)	482.0
W _c , Weight of Concrete (kips)	72.6
W _R , Soil Resistance (kips)	2683.1
ΦsW _R +0.9W _c (kips)	2077.7

Uplift Design Strength (kips)	426.8	Factored Uplift (kips)	414.6
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Pier Design:

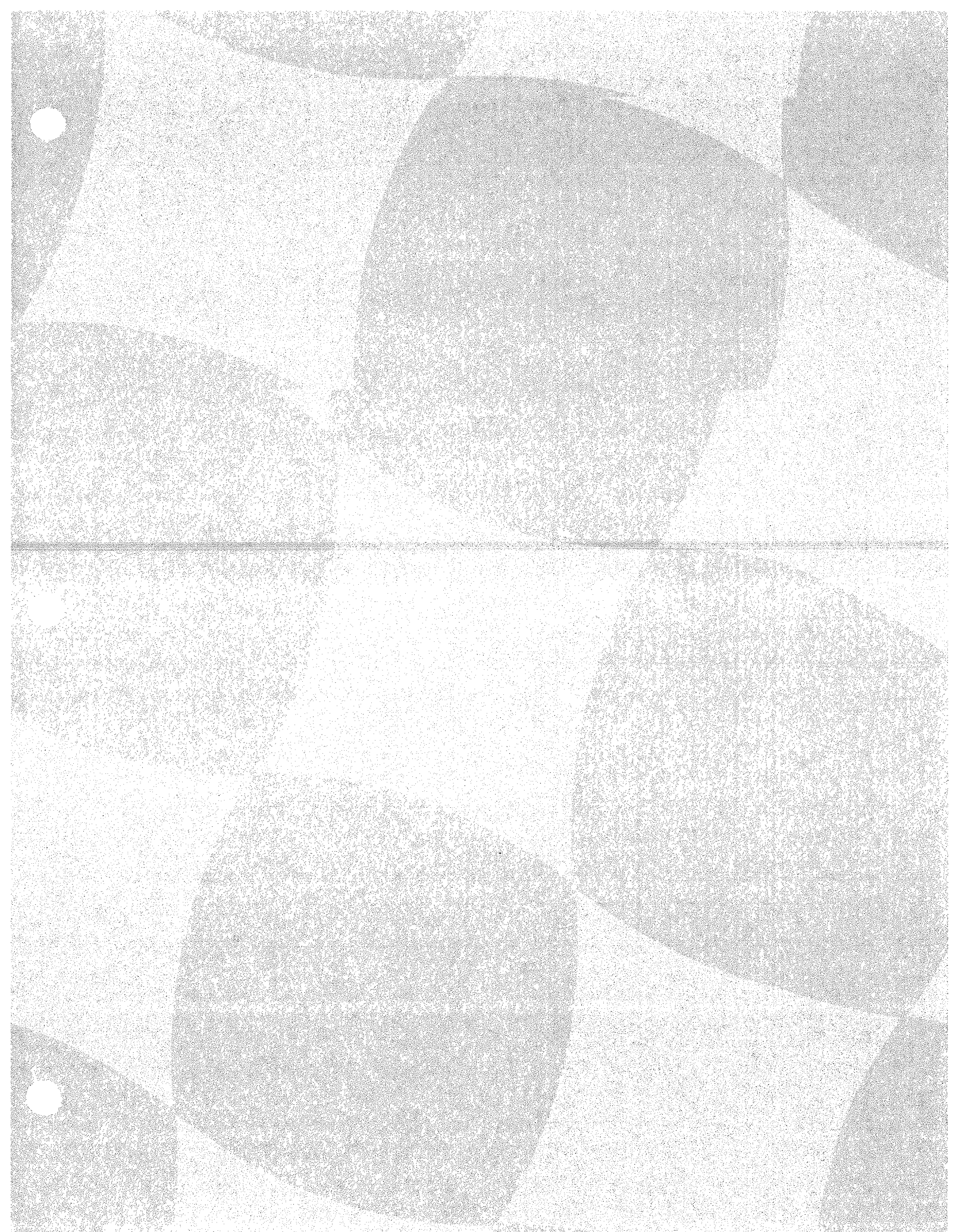
Design Tensile Strength (kips)	649.4	T _u (kips)	414.6
φV _n (kips)	107.4	V _u (kips)	34.5
φV _c =φ2(1+N _u /(500A _g))f' _c ^{1/2} b _w d (kips)	107.4		
V _s (kips)	0.0	*** V _s max = 4 f' _c ^{1/2} b _w d (kips)	466.3
Maximum Spacing (in)	9.82	(Only if Shear Ties are Required)	

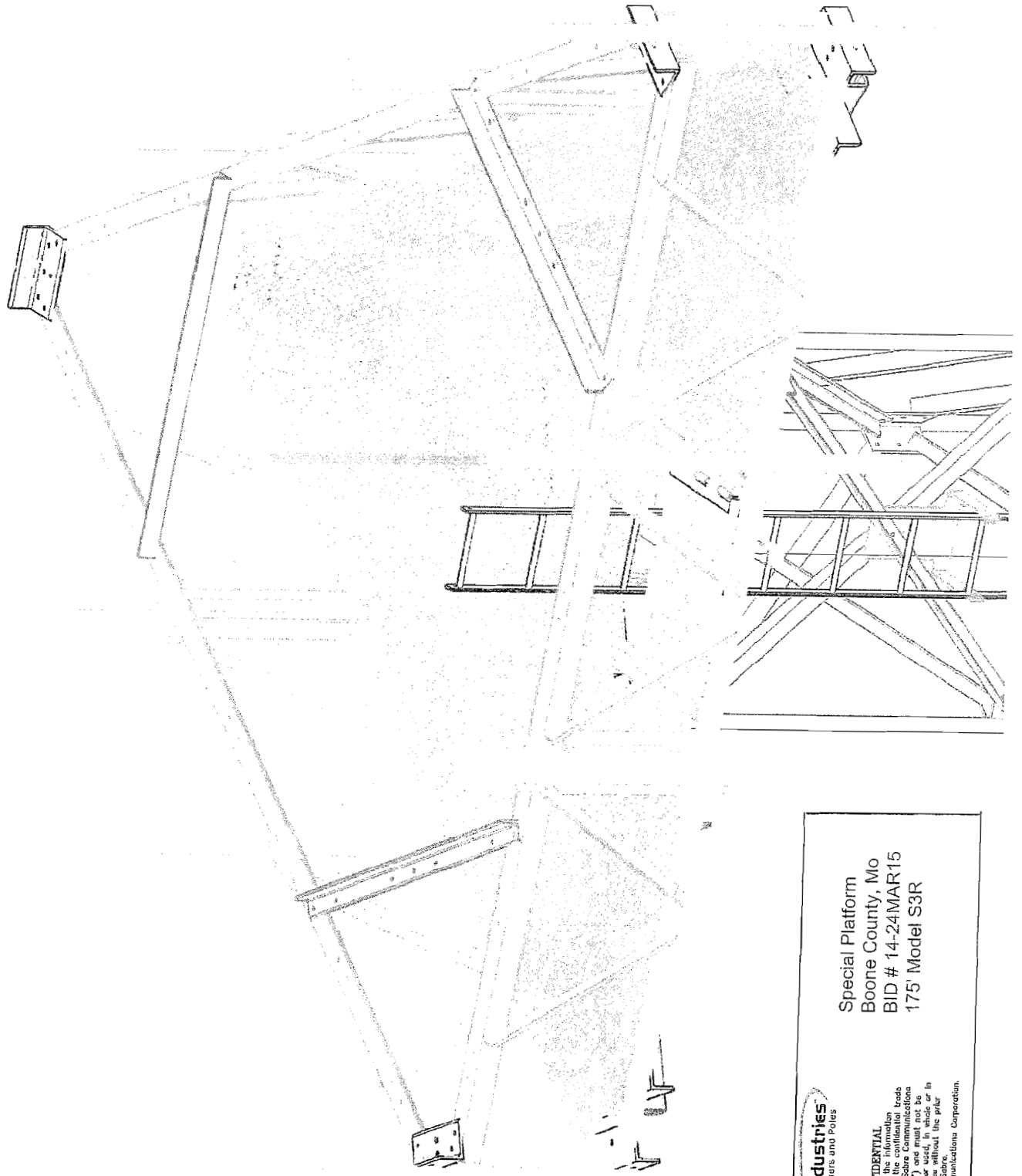
*** Ref. ACI 11.5.5 & 11.5.6.3

Anchor Bolt Pull-Out:

φP _c =φλ(2/3)f' _c ^{1/2} (2.8A _{SLOPE} + 4A _{FLAT})	256.9	P _u (kips)	414.6
Rebar Development Length (in)	40.06	Required Length of Development (in)	26.49

Condition	1 is OK, 0 Fails
Download	1
Uplift	1
Area of Steel	1
Shear	1
Anchor Bolt Pull-Out	1
Interaction Diagram Visual Check	1





Sabre Industries
Towers and Poles

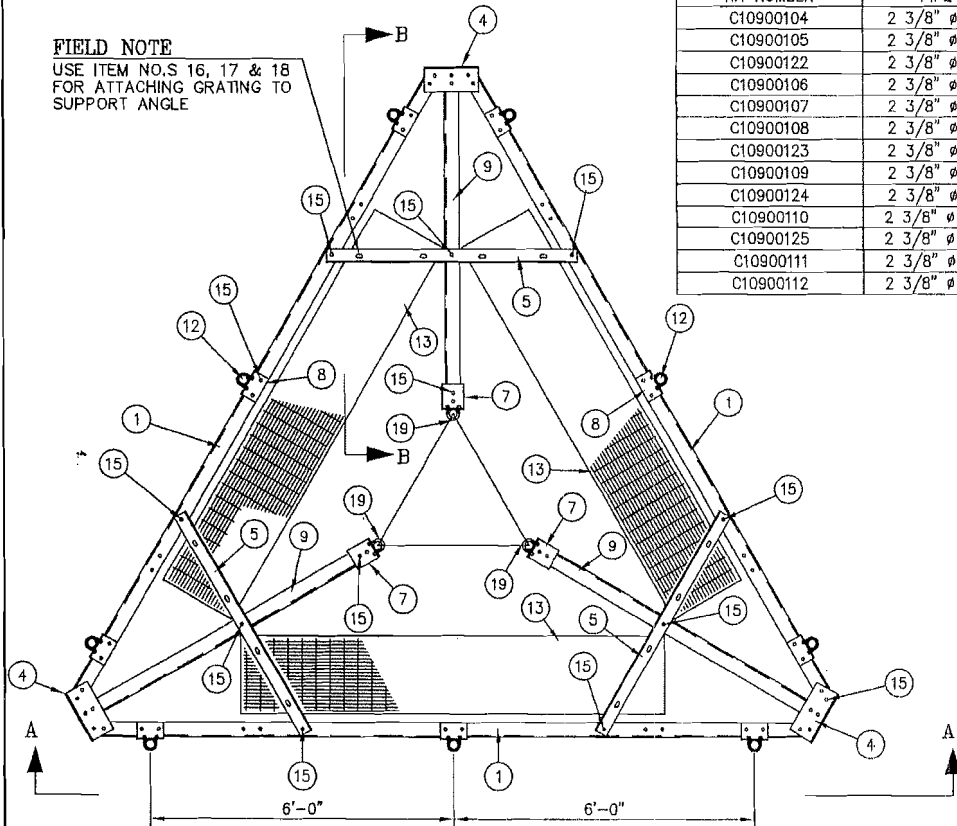
Special Platform
Boone County, Mo
BID # 14-24MAR15
175' Model S3R

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FIELD NOTE

USE ITEM NO.S 16, 17 & 18 FOR ATTACHING GRATING TO SUPPORT ANGLE



PLAN

SEE SHEET 2 OF 2 FOR SECTIONS "A-A" & "B-B".

NOTES:

1. THE MOUNTING ARRANGEMENT OF THE MOUNTS SHOWN ON THE PLAN VIEW ARE TYPICAL ONLY, AND MAY HAVE TO BE ALTERED AT THE TIME OF INSTALLATION TO FIT THE ACTUAL REQUIREMENTS.

+++ ANTENNA PIPE MOUNTING KITS +++	
KIT NUMBER	PIPE SIZE
C10900104	2 3/8" φ X 4'-0"
C10900105	2 3/8" φ X 5'-0"
C10900122	2 3/8" φ X 5'-3"
C10900106	2 3/8" φ X 6'-0"
C10900107	2 3/8" φ X 7'-0"
C10900108	2 3/8" φ X 8'-0"
C10900123	2 3/8" φ X 8'-6"
C10900109	2 3/8" φ X 9'-0"
C10900124	2 3/8" φ X 9'-6"
C10900110	2 3/8" φ X 10'-0"
C10900125	2 3/8" φ X 10'-6"
C10900111	2 3/8" φ X 11'-0"
C10900112	2 3/8" φ X 12'-0"

CK00015 ROTATABLE PLATFORM ANGLE KIT					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
1.	3	CS00321	ANGLE, TOP CHORD	CS00321	
2.	3	CS00322	ANGLE, BOTTOM CHORD	CS00322	
3.	18	CS00323	ANGLE, DIAGONAL	CS00323	
4.	6	CS00320	ANGLE, CORNER SUPPORT (SHORT)	CS00320	
5.	6	CS00324	ANGLE, CORNER SUPPORT (LONG)	CS00324	
6.	9	CS00319	ANGLE, VERTICAL (BOOM)	CS00319	

TOWER LEG AND PIPE MOUNTING MATERIAL					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
7.	6	CS01161	ANGLE, LEG MOUNT 2"φ	CS01161	
8.	18	CS00265	ANGLE, PIPE MOUNT	CS00265	

CK00048 MISCELLANEOUS FRAMING MATERIAL					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
9.	3	CS00312	ANGLE, TOP CHORD (BOOM)	CS00312	
10.	3	CS00315	ANGLE, BOTTOM CHORD (BOOM)	CS00315	
11.	6	CS00318	ANGLE, DIAGONAL (BOOM)	CS00318	

+++ ANTENNA PIPE MOUNTING KITS +++					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
12.	9	+++	ANTENNA MTG. PIPE, 2 3/8" φ X (LENGTH VARIES)	+++	

PLATFORM GRATING					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
13.	3	C20137005	PLATFORM GRATING	C20137005	

HARDWARE					
ITEM	QTY.	DWG. NO.	DESCRIPTION	PART NO.	
14.	66	---	BOLT ASSEMBLY, 5/8" φ X 1 3/4" A325	C40026022	
15.	102	---	BOLT ASSEMBLY, 5/8" φ X 2" A325	C40026023	
16.	12	---	BOLT ASSEMBLY, 3/8" φ X 3 3/4" GRD 5	C40024013	
17.	12	---	FLATWASHER, 3/8"	C40031001	
18.	12	---	FENDER WASHER, 3/8" X 1 1/2" X .097	C40046001	
19.	12	C40034-3	U-BOLT ASSEMBLY 5/8" X 2 11/16" C/C	C40034022	

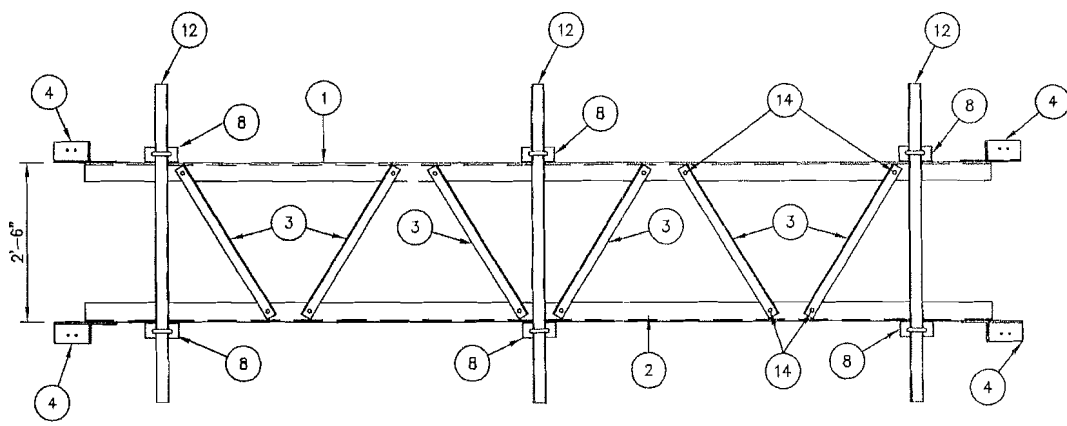
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL: FITS 2" LEG 5'-0" C/C LEG	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL.	
REV	DATE	DRW/CHK	DESCRIPTION



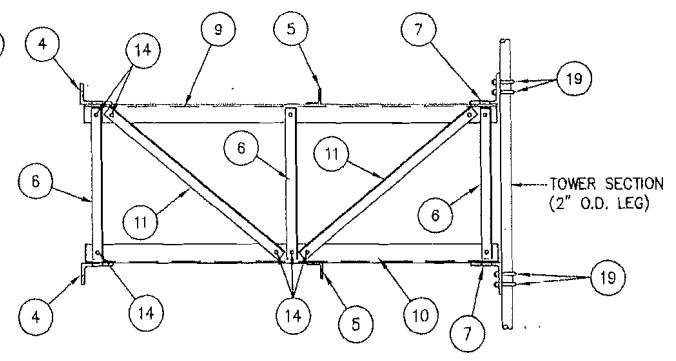
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INSTALLATION DETAIL FOR ANTENNA MOUNTING FRAME WITH GRATING (3 PIPE)

DATE	9/24/09	SIZE	B	DRAWING NO.	9030671	REV	0
DRAWN BY	CHH	SCALE	None	PAGE	1	OF 2	
CHECKED BY	CE						



SECTION A-A

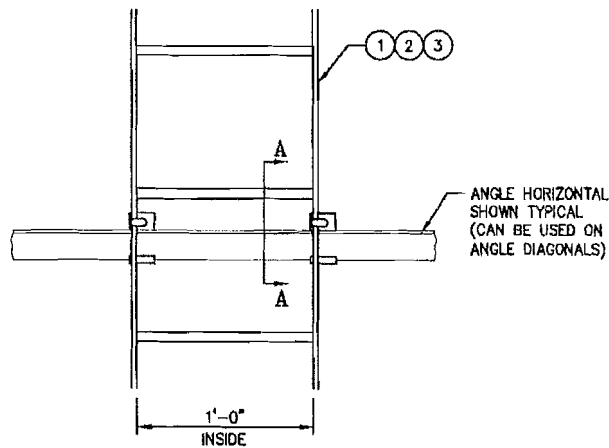


SECTION B-B

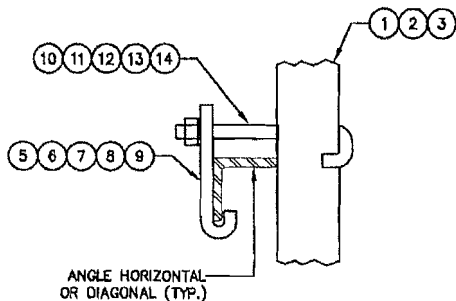
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL: FITS 2" LEG 5'-0" C/G LEG	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL.	
REV	DATE	DRW/CHK	DESCRIPTION

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INSTALLATION DETAIL FOR ANTENNA MOUNTING FRAME WITH GRATING (3 PIPE)			
DATE	9/24/09	SIZE	B
DRAWN BY	CHH	DRAWING NO.	9030671
CHECKED BY	CE	SCALE	None
		PAGE	2 OF 2
		REV	0



ELEVATION
(TYPICAL MOUNTING DETAIL)



SECTION A-A

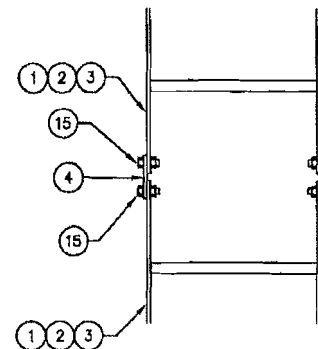
ANGLE HORIZONTAL
SHOWN TYPICAL
(CAN BE USED ON
ANGLE DIAGONALS)

NOTE:
MAXIMUM SPACING OF LADDER CLIPS
UP THE TOWER TO BE ±10'-0".

LIST OF MATERIAL

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	A/R	CW00031	WELDMENT, 20 FT CLIMBING LADDER	
2.	A/R	CW00029	WELDMENT, 10 FT CLIMBING LADDER	
3.	A/R	CW00028	WELDMENT, 5 FT CLIMBING LADDER	
4.	A/R	CS00037	PLATE, LADDER SPLICE	
5.	A/R	CS00169	CLIP, LADDER ATTACHMENT (1 1/2" - 4" ANGLES)	
6.	A/R	CS00170	CLIP, LADDER ATTACHMENT (5" - 8" ANGLES: 3/8" THK. & UNDER)	
7.	A/R	CS00171	CLIP, LADDER ATTACHMENT (1 1/2" - 8" ANGLES)	
8.	A/R	CS00808	CLIP, LADDER ATTACHMENT (4" - 6" ANGLES: 1/2" TO 3/4" THK.)	
9.	A/R	CS01212	CLIP, LADDER ATTACHMENT (8" ANGLES)	
10.	A/R	C40039001	J-BOLT ASSY., 3/8 (1 1/2" - 2 1/2" ANGLES)	
11.	A/R	C40039002	J-BOLT ASSY., 3/8 (3" - 4" ANGLES)	
12.	A/R	C40039003	J-BOLT ASSY., 3/8 (5" - 6" ANGLES)	
13.	A/R	C40039009	J-BOLT ASSY., 3/8 (3" - 6" ANGLES, 1/2" & 3/4" THK)	
14.	A/R	C40039012	J-BOLT ASSY., 3/8 (8" ANGLES, 1/2" & 3/4" THK)	
15.	A/R	C40024004	BOLT ASSEMBLY, 3/8 X 1 1/2 GR5	
				TOTAL WEIGHT

SEE JOB SPECIFIC BILL OF MATERIAL FOR QTY'S.



SPLICE DETAIL

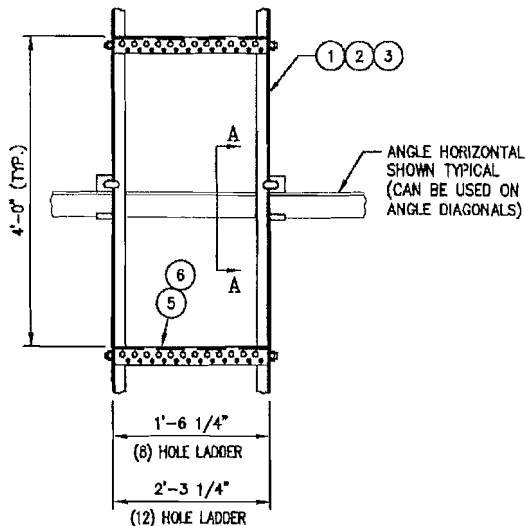
REV	DATE	BY	CHKD	DESCRIPTION
1	11/15/07	DLW		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
2	11/25/05	ZAK		UNLESS OTHERWISE SPECIFIED MATERIAL: ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"
3	12/27/05	ZAK		TOLERANCES DO NOT APPLY TO RAW MATERIAL
4	02/25/04	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
5	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
6	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
7	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
8	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
9	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
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12	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
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14	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
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34	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
35	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
36	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
37	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
38	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
39	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
40	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
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42	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
43	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
44	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
45	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
46	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
47	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
48	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES
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50	12/27/05	ZAK		ISSUE FOR CONSTRUCTION NUMBERS IN BUBBLES



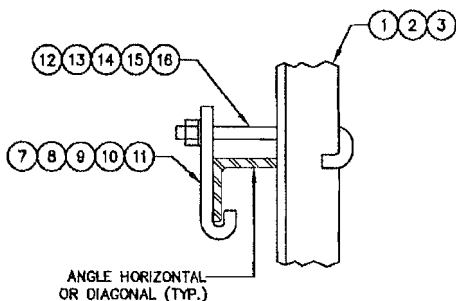
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TYPICAL CLIMBING LADDER INSTALLATION
(STANDARD 12" WIDE LADDER)

DATE	SIZE	DRAWING NO.	REV
4/18/97	B	907812	10
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CHECKED BY DLW			



ELEVATION
(TYPICAL MOUNTING DETAIL)



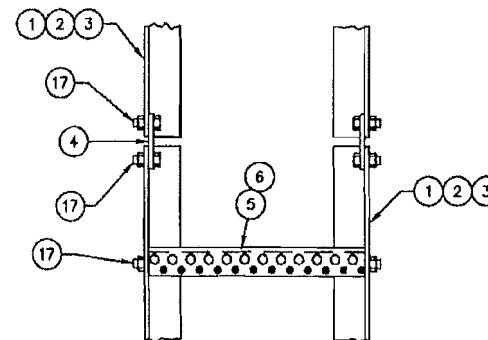
SECTION A-A

NOTE:
MAXIMUM SPACING OF LADDER CLIPS
UP THE TOWER TO BE $\pm 10^{-0}$ \"/>

LIST OF MATERIAL

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	A/R	CS00146	ANGLE, WAVEGUIDE LADDER RAIL 20 FT.	
2.	A/R	CS00148	ANGLE, WAVEGUIDE LADDER RAIL 10 FT.	
3.	A/R	CS00149	ANGLE, WAVEGUIDE LADDER RAIL 5 FT.	
4.	A/R	CS00037	PLATE, LADDER SPLICE	
5.	A/R	CS00151	ANGLE WAVEGUIDE SUPPORT (12 HOLE)	
6.	A/R	CS00150	ANGLE WAVEGUIDE SUPPORT (8 HOLE)	
7.	A/R	CS00169	CLIP, LADDER ATTACHMENT (1 1/2\" - 4\" ANGLES)	
8.	A/R	CS00170	CLIP, LADDER ATTACHMENT (5\" - 6\" ANGLES: 3/8\" THK. & UNDER)	
9.	A/R	CS00171	CLIP, LADDER ATTACHMENT (1 1/2\" - 6\" ANGLES: 1/2\" THK. & UNDER)	
10.	A/R	CS00808	CLIP, LADDER ATTACHMENT (4\" - 6\" ANGLES: 1/2\" TO 3/4\" THK.)	
11.	A/R	CS01212	CLIP, LADDER ATTACHMENT (8\" ANGLES)	
12.	A/R	C40039001	J-BOLT ASSY., 3/8 (1 1/2\" - 2 1/2\" ANGLES)	
13.	A/R	C40039002	J-BOLT ASSY., 3/8 (3\" - 4\" ANGLES)	
14.	A/R	C40039003	J-BOLT ASSY., 3/8 (5\" - 6\" ANGLES)	
15.	A/R	C40039009	J-BOLT ASSY., 3/8 (3\" - 6\" ANGLES, 1/2\" & 3/4\" THK.)	
16.	A/R	C40039012	J-BOLT ASSY., 3/8 (8\" ANGLES, 1/2\" & 3/4\" THK.)	
17.	A/R	C40024004	BOLT ASSEMBLY, 3/8 X 1 1/2 GR5	
TOTAL WEIGHT				

SEE JOB SPECIFIC BILL OF MATERIAL FOR QTY'S.



SPLICE DETAIL

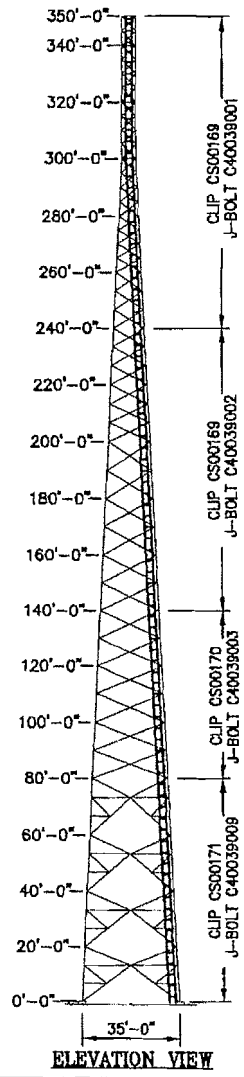
REV	DATE	BY	CHK	DESCRIPTION
1	12/21/97	DLW	DEL	ISSUE FOR CONSTRUCTION
2	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
3	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
4	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
5	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
6	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
7	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
8	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
9	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
10	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
11	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
12	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
13	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
14	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
15	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
16	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
17	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
18	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
19	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
20	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
21	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
22	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
23	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
24	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
25	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
26	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
27	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
28	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
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37	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
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51	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
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54	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
55	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
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57	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
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61	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
62	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
63	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
64	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
65	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
66	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
67	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
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71	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
72	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
73	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
74	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
75	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
76	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
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81	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
82	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
83	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
84	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
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89	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
90	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
91	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
92	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
93	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
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95	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
96	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
97	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL
98	02/28/98	DLW	DEL	REVISION TO ADD 10 FT. LADDER RAIL
99	02/28/98	DLW	DEL	REVISION TO ADD 5 FT. LADDER RAIL
100	02/28/98	DLW	DEL	REVISION TO ADD 20 FT. LADDER RAIL

Sabre Industries
Towers and Poles

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TYPICAL WAVEGUIDE LADDER INSTALLATION
8 & 12 HOLE RUNG - 7/16"φ & 3/4"φ

DATE	SIZE	DRAWING NO.	REV
1/24/97	B	907338	14
DRAWN BY	DLW	SCALE	PAGE
CHECKED BY	DEL	Note	1 OF 1



WAVEGUIDE LADDER				
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT LBS
1	34	CS00146	ANGLE, WAVEGUIDE LADDER RAIL 20 FT. W/4 FT. RUNG SPC	1020
2	2	CS00148	ANGLE, WAVEGUIDE LADDER RAIL 10 FT. W/4 FT. RUNG SPC	30
3	88	CS00151	ANGLE, WAVEGUIDE SUPPORT (12 HOLE)	334
4	34	CS00037	PLATE, LADDER SPLICE	14
5	24	CS00171	CLIP, LADDER ATTACHMENT	17
6	12	CS00170	CLIP, LADDER ATTACHMENT	8
7	48	CS00169	CLIP, LADDER ATTACHMENT	26
TOTAL WEIGHT LBS				1449

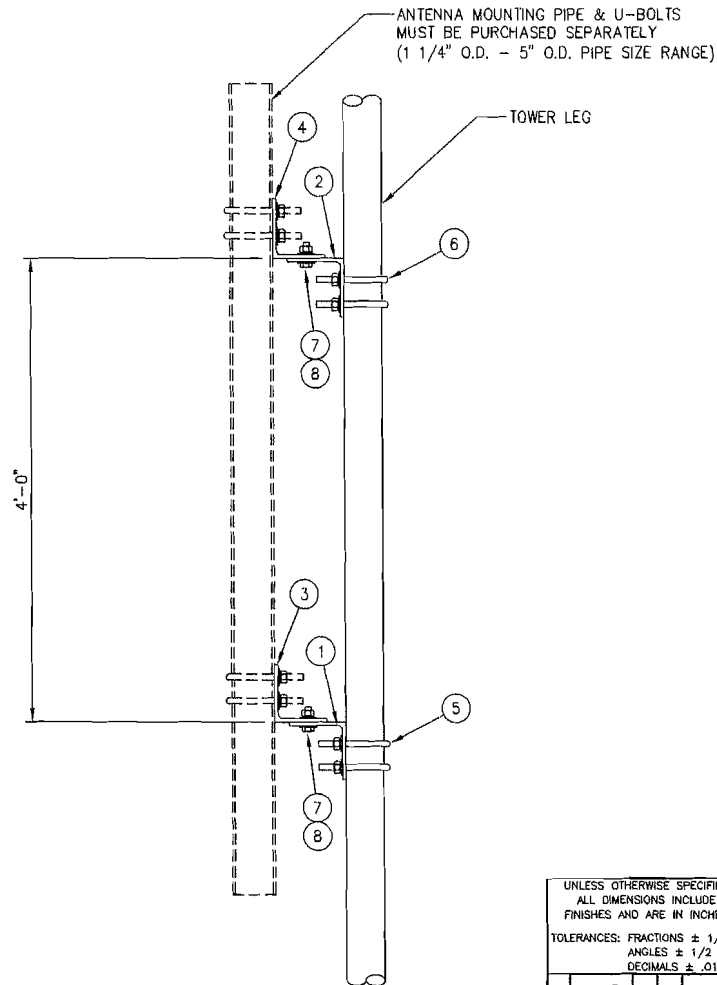
LADDER HARDWARE				
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT LBS
8	24	C40039009	J-BOLT ASSEMBLY, 3/8" X 9 I.L.	10
9	12	C40039003	J-BOLT ASSEMBLY, 3/8" X 9 I.L.	5
10	24	C40039002	J-BOLT ASSEMBLY, 3/8" X 7 1/4 I.L.	9
11	24	C40039001	J-BOLT ASSEMBLY, 3/8" X 5 3/4 I.L.	7
12	244	C40024004	BOLT ASSEMBLY, 3/8" X 1 1/2 GRD 5	24
TOTAL WEIGHT LBS				55

SAMPLE

FIELD NOTES

- FROM ELEVATIONS 0'-0" TO 80'-0" ATTACH WAVEGUIDE LADDER TO EVERY OTHER TOWER DIAGONAL AND MAIN TOWER HORIZONTAL. FROM ELEVATION 80'-0" TO 260'-0" ATTACH WAVEGUIDE LADDER TO EVERY OTHER TOWER DIAGONAL.
- FROM ELEVATION 260'-0" TO 350'-0" ATTACH WAVEGUIDE LADDER TO EVERY OTHER TOWER DIAGONAL.
- SEE REFERENCE DWG. 907338 FOR WAVEGUIDE LADDER INSTALLATION AND ATTACHMENT DETAIL.
- SEE CUSTOMER REQUESTS FOR PROPER FACE POSITIONING OF ALL LADDERS.
- WAVEGUIDE LADDERS ARE NEVER TO BE USED AS A CLIMBING DEVICE.

<p>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES</p> <p>TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"</p>	<p>MATERIAL:</p> <p>TOLERANCES DO NOT APPLY TO RAW MATERIAL</p>	<p>Sabre Industries Towers and Poles</p>	<p>W/G LADDER:</p>																							
<p>CONFIDENTIAL</p> <p>This document and the information contained herein is the confidential trade secret property of Sabre Communications Corporation ("Sabre") and must not be reproduced, copied or used, in whole or in part, for any purpose without the prior written consent of Sabre.</p> <p>© 2014 Sabre Communications Corporation. All rights reserved.</p>		<table border="1" style="width: 100%;"> <tr> <td>DATE</td> <td>05/22/14</td> <td>SIZE</td> <td>B</td> <td>DRAWING NO.</td> <td></td> <td>REV</td> <td>0</td> </tr> <tr> <td>DRAWN BY</td> <td>ORL</td> <td colspan="2"></td> <td>SCALE</td> <td>NONE</td> <td colspan="2">PAGE 1 OF 1</td> </tr> <tr> <td>CHECKED BY</td> <td>ZAK</td> <td colspan="2"></td> <td colspan="4"></td> </tr> </table>	DATE	05/22/14	SIZE	B	DRAWING NO.		REV	0	DRAWN BY	ORL			SCALE	NONE	PAGE 1 OF 1		CHECKED BY	ZAK						
DATE	05/22/14	SIZE	B	DRAWING NO.		REV	0																			
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<table border="1" style="width: 100%;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY/CHK</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		REV	DATE	BY/CHK	DESCRIPTION																					
REV	DATE	BY/CHK	DESCRIPTION																							



ELEVATION VIEW

LIST OF MATERIAL FOR STRAIGHT LEG PIPE MOUNT KIT

ITEM	QTY.	PART NO.	DESCRIPTION
1.	1	*	ANGLE, LEG MOUNT BOTTOM
2.	1	*	ANGLE, LEG MOUNT TOP
3.	1	*	ANGLE, PIPE MOUNT BOTTOM FOR 4 1/2" O.D. PIPE
4.	1	*	ANGLE, PIPE MOUNT TOP FOR 4 1/2" O.D. PIPE
5.	2	*	U-BOLT ASSEMBLY, 5/8 (BOTTOM LEG MOUNT)
6.	2	*	U-BOLT ASSEMBLY, 5/8 (TOP LEG MOUNT)
7.	4	C40026024	BOLT ASSEMBLY 5/8 X 2 1/4 A325
8.	8	C40031003	FLATWASHER, 5/8 (F436)

* = SEE PIPE MOUNT KIT CHARTS ON PAGES 2 AND 3 FOR LEG MOUNTS, PIPE MOUNTS AND ASSOCIATED U-BOLTS. KIT WEIGHTS INCLUDE ALL MATERIAL LISTED ABOVE.

ANTENNA MOUNTING PIPE & U-BOLTS MUST BE PURCHASED SEPARATELY. (1 1/4" O.D. - 5" O.D. PIPE SIZE RANGE)

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS INCLUDE
FINISHES AND ARE IN INCHES
TOLERANCES: FRACTIONS ± 1/16"
ANGLES ± 1/2 DEG.
DECIMALS ± .010"

MATERIAL:
TOLERANCES DO NOT APPLY
TO RAW MATERIAL



ROUND LEG PIPE MOUNT KITS
(STRAIGHT LEG 1 1/4" O.D. - 8 5/8" O.D.)

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REV	DATE	DRW/CHK	DESCRIPTION
3	7/19/14	URS/ZAK	ADDED C10173065
2	3/27/12	DLW/KLE	ADDED C10173064
1	12/22/04	KLE/RSB	ADDED C10173060, C10173061 & C10173062

DATE	3/14/03	SIZE	B	DRAWING NO.	C10173	REV	3
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ROUND LEG PIPE MOUNT KITS (STRAIGHT LEG)

LEG DIAMETER		KIT NUMBER	BOTTOM LEG MOUNT		TOP LEG MOUNT		BOTTOM PIPE MOUNT		TOP PIPE MOUNT		KIT WEIGHT
BOTTOM	TOP		MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	
1 1/4"	1 1/4"	C10173060	CS00216	C40034041	CS00216	C40034041	CS00214		CS00214		62.0#
1 1/2"	1 1/4"	C10173061	CS00216	C40034020	CS00216	C40034041	CS00214		CS00214		62.1#
1 3/4"	1 1/4"	C10173062	CS00216	C40034021	CS00216	C40034041	CS00214		CS00214		62.3#
1 1/2"	1 1/2"	C10173001	CS00216	C40034020	CS00216	C40034020	CS00214		CS00214		66.8#
1 3/4"	1 1/2"	C10173002	CS00216	C40034021	CS00216	C40034020	CS00214		CS00214		66.9#
1 3/4"	1 3/4"	C10173003	CS00216	C40034021	CS00216	C40034021	CS00214		CS00214		67.0#
2"	1 1/2"	C10173004	CS00216	C40034022	CS00216	C40034020	CS00214		CS00214		67.4#
2"	1 3/4"	C10173005	CS00216	C40034022	CS00216	C40034021	CS00214		CS00214		67.5#
2"	2"	C10173006	CS00216	C40034022	CS00216	C40034022	CS00214		CS00214		68.0#
2 1/4"	1 3/4"	C10173007	CS00216	C40034023	CS00216	C40034021	CS00214		CS00214		67.7#
2 1/4"	2"	C10173008	CS00216	C40034023	CS00216	C40034022	CS00214		CS00214		68.2#
2 1/4"	2 1/4"	C10173009	CS00216	C40034023	CS00216	C40034023	CS00214		CS00214		68.3#
2 3/8"	2 3/8"	C10173010	CS00216	C40034023	CS00216	C40034023	CS00214		CS00214		68.3#
2 1/2"	2"	C10173011	CS00216	C40034024	CS00216	C40034022	CS00214		CS00214		68.2#
2 1/2"	2 1/4"	C10173012	CS00216	C40034024	CS00216	C40034023	CS00214		CS00214		68.4#
2 1/2"	2 1/2"	C10173013	CS00216	C40034024	CS00216	C40034024	CS00214		CS00214		68.4#
2 3/4"	2 1/4"	C10173014	CS00216	C40034025	CS00216	C40034023	CS00214		CS00214		68.5#
2 3/4"	2 1/2"	C10173015	CS00216	C40034025	CS00216	C40034024	CS00214		CS00214		68.6#
2 3/4"	2 3/4"	C10173016	CS00216	C40034025	CS00216	C40034025	CS00214		CS00214		68.6#
2 7/8"	2 3/8"	C10173017	CS00216	C40034025	CS00216	C40034023	CS00214		CS00214		68.5#
2 7/8"	2 7/8"	C10173018	CS00216	C40034025	CS00216	C40034025	CS00214		CS00214		68.8#
3"	2 1/2"	C10173019	CS00216	C40034026	CS00216	C40034024	CS00214		CS00214		68.7#
3"	2 3/4"	C10173020	CS00216	C40034026	CS00216	C40034025	CS00214		CS00214		68.8#
3"	3"	C10173021	CS00216	C40034026	CS00216	C40034026	CS00214		CS00214		68.9#
3 1/4"	2 3/4"	C10173022	CS00216	C40034027	CS00216	C40034025	CS00214		CS00214		69.0#
3 1/4"	3"	C10173023	CS00216	C40034027	CS00216	C40034026	CS00214		CS00214		69.0#
3 1/4"	3 1/4"	C10173024	CS00216	C40034027	CS00216	C40034027	CS00214		CS00214		69.2#
3 1/2"	2 3/8"	C10173025	CS00216	C40034028	CS00216	C40034023	CS00214		CS00214		68.8#
3 1/2"	2 7/8"	C10173026	CS00216	C40034028	CS00216	C40034025	CS00214		CS00214		69.1#
3 1/2"	3"	C10173027	CS00216	C40034028	CS00216	C40034026	CS00214		CS00214		69.1#
3 1/2"	3 1/4"	C10173028	CS00216	C40034028	CS00216	C40034027	CS00214		CS00214		69.3#
3 1/2"	3 1/2"	C10173029	CS00216	C40034028	CS00216	C40034028	CS00214		CS00214		69.4#

(2) U-BOLTS FOR THE BOTTOM PIPE MOUNT ANGLE MUST BE PURCHASED SEPARATELY TO FIT THE O.D. OF THE ANTENNA MOUNTING PIPE USED.
BOTTOM PIPE MOUNT ANGLES WILL FIT PIPE SIZES 1 1/4" O.D. - 5" O.D.

(2) U-BOLTS FOR THE TOP PIPE MOUNT ANGLE MUST BE PURCHASED SEPARATELY TO FIT THE O.D. OF THE ANTENNA MOUNTING PIPE USED.
TOP PIPE MOUNT ANGLES WILL FIT PIPE SIZES 1 1/4" O.D. - 5" O.D.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"

MATERIAL:
TOLERANCES DO NOT APPLY TO RAW MATERIAL

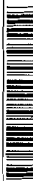


ROUND LEG PIPE MOUNT KITS (STRAIGHT LEG 1 1/4" O.D. - 8 5/8" O.D.)

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DATE	3/14/03	SIZE	B	DRAWING NO.	C10173	REV	3
DRAWN BY	KLE	SCALE	None	PAGE	2	OF 3	
CHECKED BY	DLW						

REV	DATE	DRW/CHK	DESCRIPTION
1	7/16/14	ERS/ZAK	ADDED C10173065
2	3/22/12	DLK/ZAK	ADDED C10173064
3	12/02/04	RLS/ESS	ADDED C10173060, C10173061, & C10173062



ROUND LEG PIPE MOUNT KITS (STRAIGHT LEG)

LEG DIAMETER		KIT NUMBER	BOTTOM LEG MOUNT		TOP LEG MOUNT		BOTTOM PIPE MOUNT		TOP PIPE MOUNT		KIT WEIGHT
BOTTOM	TOP		MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	MOUNT (1 REQ'D.)	5/8 U-BOLT (2 REQ'D.)	
3 3/4"	3 1/4"	C10173030	CS00216	C40034029	CS00216	C40034022	CS00214		CS00214		69.4#
3 3/4"	3 1/2"	C10173031	CS00216	C40034029	CS00216	C40034028	CS00214		CS00214		69.5#
3 3/4"	3 3/4"	C10173032	CS00216	C40034029	CS00216	C40034029	CS00214		CS00214		69.6#
4"	2 3/8"	C10173064	CS00216	C40034030	CS00216	C40034023	CS00214		CS00214		69.3#
4"	2 7/8"	C10173033	CS00216	C40034030	CS00216	C40034025	CS00214		CS00214		69.3#
4"	3 1/2"	C10173034	CS00216	C40034030	CS00216	C40034028	CS00214		CS00214		69.6#
4"	3 3/4"	C10173035	CS00216	C40034030	CS00216	C40034029	CS00214		CS00214		69.7#
4"	4"	C10173036	CS00216	C40034030	CS00216	C40034030	CS00214		CS00214		69.8#
4 1/4"	3 3/4"	C10173037	CS00217	C40034031	CS00217	C40034029	CS00214		CS00214		75.0#
4 1/4"	4"	C10173038	CS00217	C40034031	CS00217	C40034030	CS00214		CS00214		75.2#
4 1/4"	4 1/4"	C10173039	CS00217	C40034031	CS00217	C40034031	CS00214		CS00214		75.3#
4 1/2"	2 7/8"	C10173040	CS00217	C40034032	CS00217	C40034025	CS00214		CS00214		74.7#
4 1/2"	3 1/2"	C10173041	CS00217	C40034032	CS00217	C40034028	CS00214		CS00214		75.0#
4 1/2"	3 3/4"	C10173042	CS00217	C40034032	CS00217	C40034029	CS00214		CS00214		75.2#
4 1/2"	4"	C10173043	CS00217	C40034032	CS00217	C40034030	CS00214		CS00214		75.3#
4 1/2"	4 1/4"	C10173044	CS00217	C40034032	CS00217	C40034031	CS00214		CS00214		75.4#
4 1/2"	4 1/2"	C10173045	CS00217	C40034032	CS00217	C40034032	CS00214		CS00214		75.5#
4 3/4"	4 1/4"	C10173046	CS00217	C40034033	CS00217	C40034031	CS00214		CS00214		75.5#
4 3/4"	4 1/2"	C10173047	CS00217	C40034033	CS00217	C40034032	CS00214		CS00214		75.6#
4 3/4"	4 3/4"	C10173048	CS00217	C40034033	CS00217	C40034033	CS00214		CS00214		75.6#
5"	4 1/2"	C10173049	CS00217	C40034034	CS00217	C40034034	CS00214		CS00214		75.7#
5"	4 3/4"	C10173050	CS00217	C40034034	CS00217	C40034033	CS00214		CS00214		75.8#
5"	5"	C10173051	CS00219	C40034035	CS00219	C40034025	CS00214		CS00214		81.7#
5 9/16"	2 7/8"	C10173052	CS00219	C40034035	CS00219	C40034028	CS00214		CS00214		75.9#
5 9/16"	3 1/2"	C10173053	CS00219	C40034035	CS00219	C40034030	CS00214		CS00214		75.9#
5 9/16"	4"	C10173054	CS00219	C40034035	CS00219	C40034032	CS00214		CS00214		82.0#
5 9/16"	4 1/2"	C10173055	CS00219	C40034035	CS00219	C40034032	CS00214		CS00214		82.5#
5 9/16"	5 9/16"	C10173056	CS00219	C40034035	CS00219	C40034035	CS00214		CS00214		82.5#
6 5/8"	4 1/2"	C10173057	CS00219	C40034036	CS00219	C40034035	CS00214		CS00214		82.9#
6 5/8"	5 9/16"	C10173058	CS00219	C40034036	CS00219	C40034035	CS00214		CS00214		89.9#
6 5/8"	6 5/8"	C10173059	CS00219	C40034036	CS00219	C40034036	CS00214		CS00214		90.4#
8 5/8"	8 5/8"	C10173065	CS00219	C40034037	CS00219	C40034037	CS00214		CS00214		90.0#

(2) U-BOLTS FOR THE BOTTOM PIPE MOUNT ANGLE MUST BE PURCHASED SEPARATELY TO FIT THE O.D. OF THE ANTENNA MOUNTING PIPE USED.
 BOTTOM PIPE MOUNT ANGLES WILL FIT PIPE SIZES 1 1/4" O.D. - 5" O.D.

(2) U-BOLTS FOR THE TOP PIPE MOUNT ANGLE MUST BE PURCHASED SEPARATELY TO FIT THE O.D. OF THE ANTENNA MOUNTING PIPE USED.
 TOP PIPE MOUNT ANGLES WILL FIT PIPE SIZES 1 1/4" O.D. - 5" O.D.

UNLESS OTHERWISE SPECIFIED MATERIAL:
 ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES
 TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"
 TOLERANCES DO NOT APPLY TO RAW MATERIAL



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ROUND LEG PIPE MOUNT KITS (STRAIGHT LEG 1 1/4" O.D. - 8 5/8" O.D.)

DATE	3/14/03	SIZE	B
DRAWN BY	KLE	DRAWING NO.	C10173
CHECKED BY	DLW	SCALE	None
		PAGE	3 OF 3
		REV	3

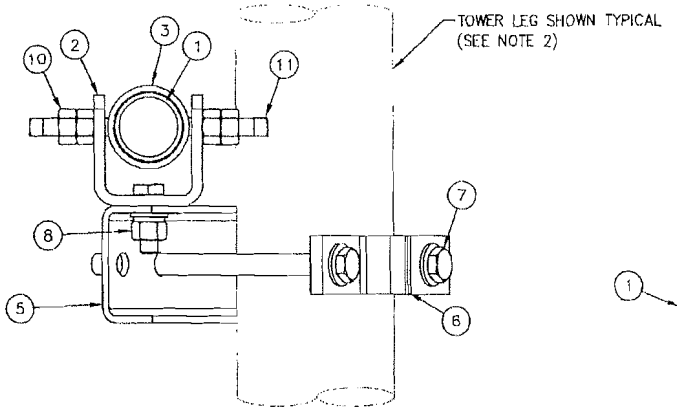


C10179001 SWIVEL KNUCKLE TIEBACK KIT

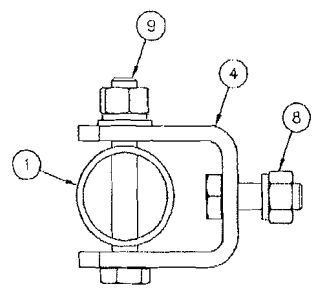
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	1	CS02099	PIPE, 2 3/8" O.D. X 0.148 X 10'-0	32
2.	1	CW00013	SWIVEL PLATE WELDMENT	3
3.	1	CS00097	PIPE, 2 7/8" O.D. X 0.203 X 0'-1 3/4	1
4.	1	CS00098	BENT SWIVEL PLATE	3
5.	1	CS01360	PLATE, MOUNTING BRACKET (FORMED CHANNEL)	9
6.	1	CS01361	PLATE, 2 HOLE ADAPTER CLAMP	3
7.	2	C40140001	BOLT ASSEMBLY, 3/4 X 10 A307 W/NUT, LKW, FLW	4
8.	2	C40026023	BOLT ASSEMBLY, 5/8 X 2 A325	1
9.	1	C40026033	BOLT ASSEMBLY, 5/8 X 4 1/2 A325	1
10.	2	C40042007	HEX NUT, 5/8 A194 2H	1
11.	2	C40998007	SQ. HEAD SET SCREW, 5/8 X 2 1/2	1
TOTAL WEIGHT				59

NOTES:

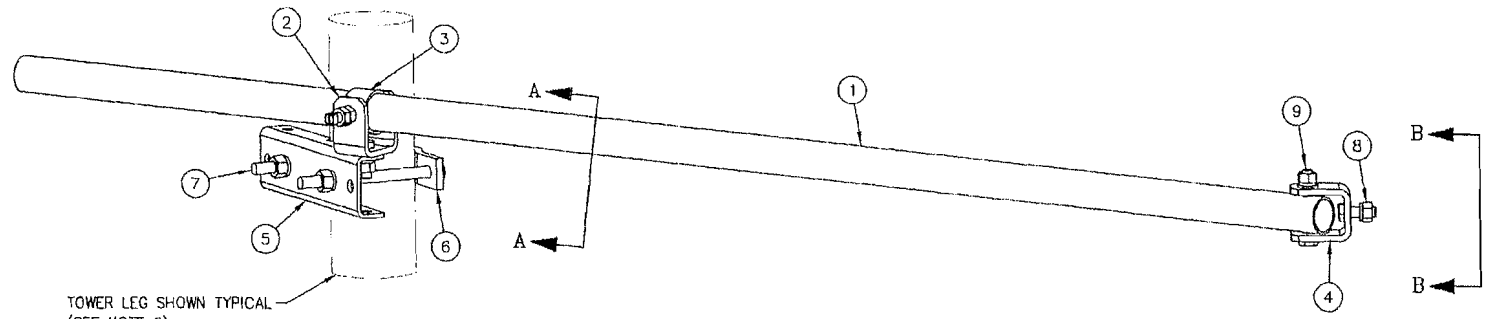
- QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) SWIVEL KNUCKLE TIEBACK ONLY.
- THIS SWIVEL KNUCKLE TIEBACK KIT WILL MOUNT TO THE FOLLOWING:
 - 1 1/2" TO 5 9/16" ROUND LEG
 - L 2 1/2 X 2 1/2 TO L 4 X 4 ANGLE LEG



SECTION A-A



SECTION B-B



ISOMETRIC VIEW

TOWER LEG SHOWN TYPICAL (SEE NOTE 2)

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES
 TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"
 MATERIAL: TOLERANCES DO NOT APPLY TO RAW MATERIAL.



SWIVEL KNUCKLE TIEBACK ASSEMBLY
 (2 3/8" PIPE X 10'-0")

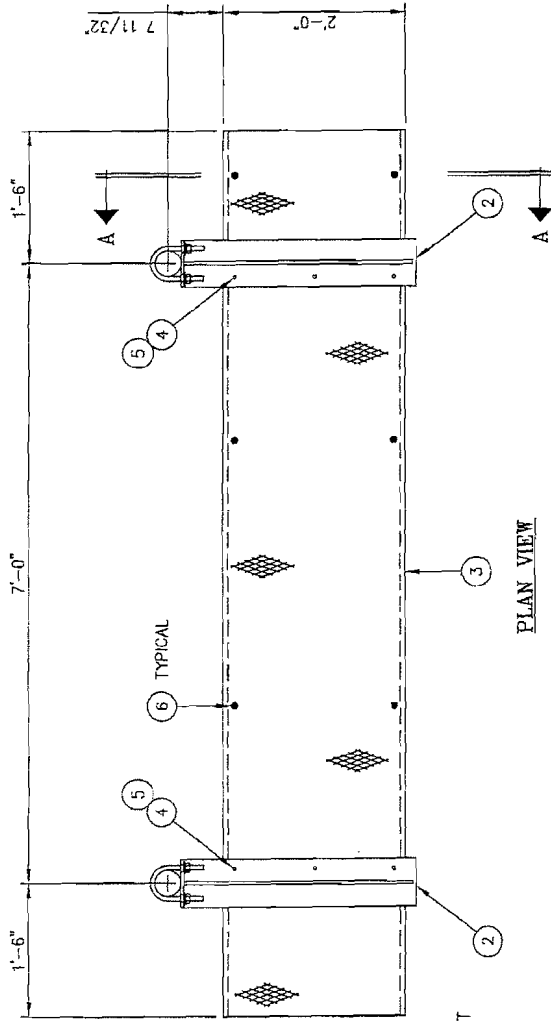
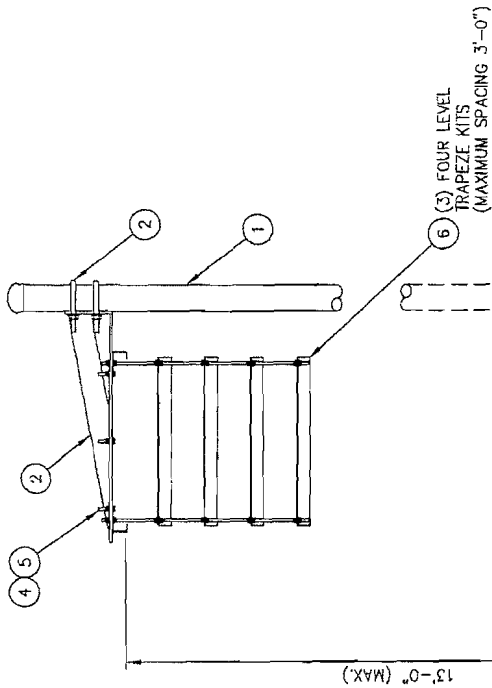
REV	DATE	DRW/CHK	DESCRIPTION
3	8/8/09	MLC/MC	REVISED WALL THICKNESS ON ITEM 1
2	11/27/09	MLC/MC	REVISED ITEM 1
1	12/1/06	MLC/MC	REVISED NOTE 2

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DATE	10/12/06	SIZE	DRAWING NO.	REV
DRAWN BY	MLC	B	C10179001	3
CHECKED BY	MC	SCALE	None	PAGE 1 OF 1

C20135101 GRIP STRUT WAVEGUIDE BRIDGE KIT

ITEM	QTY.	PART. NO.	DESCRIPTION	WEIGHT
1.	2	C20138001	PIPE, WAVEGUIDE BRIDGE POST W/PIPE CAP	231.0#
2.	2	C20140011	WAVEGUIDE BRIDGE SUPPORT ARM W/U-BOLTS	33.8#
3.	1	C20137002	GRIP STRUT WAVEGUIDE BRIDGE, 24" X 10'-0"	74.0#
4.	6	C40012017	STAINLESS STEEL BOLT ASSY, 3/8 X 2	0.6#
5.	12	C40046001	FENDER WASHER, 7/16 I.D. X 1 1/2 O.D.	0.6#
6.	3	C20145008	FOUR LEVEL TRAPEZE KIT	56.7#
TOTAL WEIGHT				396.7#



PLAN VIEW

NOTE:
THIS WAVEGUIDE BRIDGE ASSEMBLY IS NOT DESIGNED TO SUPPORT PERSONNEL OR EQUIPMENT.

GRADE
FOUNDATION & REINFORCEMENT PROVIDED BY OTHERS

MINIMUM EMBEDMENT INTO UNDISTURBED SOIL

SECTION A-A

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UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES	TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 2' 0" DEC. DECIMALS ± .010"	MATERIAL:	TOLEANCES DO NOT APPLY TO RAW MATERIAL
REV	DATE	BY	DESCRIPTION
1	1/13/09	WJC/M.C.	REVISED WEIGHT OF ITEM 1
<p>GRIP STRUT WAVEGUIDE BRIDGE WITH 18'-0" PIPE COLUMNS (24" WIDE X 10'-0") FOUR LEVEL TRAPEZE</p>		<p>DATE: 03/31/08 DRAWN BY: KTW CHECKED BY: PSB</p>	<p>DRAWING NO. C20135101 SCALE: None</p>
<p>SIZE: B</p>		<p>REV: 1</p>	<p>PAGE: 1 OF 1</p>

**BLANK RFB 14-24MAR15
BID DOCUMENT**



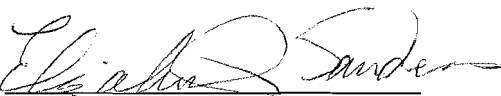
BOONE COUNTY, MISSOURI
Request for Bid #: 14-24MAR15 – Radio Tower Design, Engineering and
Fabrication Services

ADDENDUM #2 - Issued March 23, 2015

This addendum is issued in accordance with the Introductions and General Conditions of Bidding and Boone County Standard Terms and Conditions in RFB 14-24MAR15 and is hereby incorporated into and made a part of the Request for Bid Documents. Bidders are reminded that receipt of this addendum **should be acknowledged** and submitted with Bidder's *Response Form*.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect.

The **BID CLOSING DATE** has been extended **FROM** March 24, 2015 **TO** April 3, 2015 at 2:00 p.m in order to allow for prospective bidders to prepare and submit bid responses to this bid opportunity. No specification changes are made with this addendum.

By: 
Elizabeth Sanders, CPPB
Senior Buyer, Purchasing

OFFEROR has examined copy of **Addendum #2** to Request for Bid#**14-24MAR15, Radio Tower Design, Engineering and Fabrication Services**, receipt of which is hereby acknowledged:

Company Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

E-mail: _____

Authorized Representative Signature: _____ Date: _____

Authorized Representative Printed Name: _____



BOONE COUNTY, MISSOURI
Request for Bid #: 14-24MAR15 – Radio Tower Design, Engineering and
Fabrication Services

ADDENDUM #1 - Issued March 20, 2015


This addendum is issued in accordance with the Primary Specifications in the Request for Bid and is hereby incorporated into and made a part of the Request for Bid Documents. Bidders are reminded that receipt of this addendum ***should be acknowledged*** and submitted with Bidder's *Response Form*.

Specifications for the above noted Request for Bid and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect.

The following are clarifications made with regard to the Primary Specifications in RFB 14-24MAR15:

- 1) **Question: Are we to include labor for erecting the Tower?**
Answer: No labor for foundation or erection is to be quoted. This bid is for materials only. Successful bidder will deliver materials to job site, unloading done by others.
- 2) **Question: Are we to provide only the mounts listed in Section 3.01?**
Answer: Furnish antenna mounts as described in Section 3.01 of the Primary Specifications.
- 3) **Question: Do antennas, dishes, coax need to be installed and provided?**
Answer: This is a bid for tower steel only. Refer to Section 3.01 for full descriptions of what is to be 'furnished' by successful bidder and what are 'design' aspects.
- 4) **Clarification request: Item 3.02- "Furnish exterior climbing ladder with required standoffs". Where in the specifications is the standoff requirement?**
Answer: The only 'required standoff' is the spacing of the ladder that prevents a climber's boot toe from hanging up between a girt or strut and the ladder step.
- 5) **Clarification for Section 5.00 SUBMITTALS:** Bidders shall submit with Bid Response their drawings for Items 5.01, 5.02, 5.03, 5.04 and 5.05. These are preliminary design drawings, for proposal purposes and not to be used for construction purposes. *Sealed and stamped drawings* are to be furnished with Bid Response for Items 5.06 and 5.07: Structural analysis of tower, and Foundation design, all certified by registered professional engineer, state of registry: Missouri. Upon award of tower bid, successful bidder shall furnish *sealed and stamped* key erection drawings, fabrication and design drawings, and all certified by a registered professional engineer, state of registry: Missouri.

By:


Elizabeth Sanders, CPPB
Senior Buyer, Purchasing

OFFEROR has examined copy of **Addendum #1** to Request for Bid#**14-24MAR15, Radio Tower Design, Engineering and Fabrication Services**, receipt of which is hereby acknowledged:

Company Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

E-mail: _____

Authorized Representative Signature: _____ Date: _____

Authorized Representative Printed Name: _____



Boone County Purchasing
613 E. Ash Street, Room 111
Columbia, Mo 65201

REQUEST FOR BID (RFB)

Elizabeth Sanders, CPPB
Senior Buyer
(573) 886-4393 – Fax: (573) 886-4390
Email: lsanders@boonecountymo.org

Bid Data

Bid Number: **14-24MAR15**
Commodity Title: **Radio Tower Design, Engineering and Fabrication Services**

DIRECT ANY BID FORMAT OR SUBMISSION QUESTIONS TO PURCHASING DEPT.

Bid Submission Address and Deadline

Day/Date: **Tuesday, March 24, 2015**
Time: **2:00 PM (Bids received after this time will be returned unopened)**
Location/Mail Address: **Boone County Purchasing Department
Boone County Annex Building
613 E. Ash, Room 111
Columbia, Mo 65201**
Directions: **Annex Building is located at corner of 7th & Ash St.**

Bid Opening

Day/Date: **Tuesday, March 24, 2015**
Time: **2:00 PM, Central Time**
Location/Address: **Boone County Annex Building
613 E. Ash St, Columbia, MO 65201**

Bid Contents

1.0: **Introduction and General Conditions of Bidding**
2.0: **Primary Specifications**
3.0: **Response Presentation and Review**
4.0: **Response Form**
Attachments: **Statement of Bidder's Qualifications
"No Bid" Response Form
Standard Terms and Conditions
Instructions for House Bill 1549
Work Authorization Certification
Individual Bidder Affidavits
Debarment Form
Geotechnical Engineering Report**

1. Introduction and General Conditions of Bidding

INVITATION – The County of Boone, through its Purchasing Department, invites responses, which offer to provide the goods and/or services identified on the title page, and described in greater detail in Section 2.

DEFINITIONS

County – This term refers to the County of Boone, a duly organized public entity. It may also be used as a pronoun for various subsets of the County organization, including, as the context will indicate:

Purchasing – The Purchasing Department, including its Purchasing Director and staff.

Department/s or Office/s – The County Department/s or Office/s for which this Bid is prepared, and which will be the end user/s of the goods and/or services sought.

Designee – The County employee/s assigned as your primary contact/s for interaction regarding Contract performance.

Bidder / Contractor / Supplier – These terms refer generally to businesses having some sort of relations to or with us. The term may apply differently to different classes of entities, as the context will indicate.

Bidder – Any business entity submitting a response to this Bid. Suppliers, which may be invited to respond, or which express interest in this bid, but which do not submit a response, have no obligations with respect to the bid requirements.

Contractor – The Bidder whose response to this bid is found by Purchasing to meet the best interests of the County. The Contractor will be selected for award, and will enter into a Contract for provision of the goods and/or services described in the Bid.

Supplier – All business/entities which may provide the subject goods and/or services.

Bid – This entire document, including attachments. A Bid may be used to solicit various kinds of information. The kind of information this Bid seeks is indicated by the title appearing at the top of the first page. An “Invitation for Bid” is used when the need is well defined. An “Invitation for Proposal” is used when the County will consider solutions, which may vary significantly from each other or from the County’s initial expectations.

Response – The written, sealed document submitted according to the Bid instructions.

BID CLARIFICATION – Questions regarding this Bid should be directed in writing, preferably by fax, to the Purchasing Department. Answers, citing the question asked but not identifying the questioner, will be distributed simultaneously to all known prospective Bidders. Note: written requirements in the Bid or its Addenda are binding, but any oral communications between County and Bidder are not.

Contact- Deadline for bid questions is 5:00 pm, March 17, 2015. Send to Elizabeth Sanders, Boone County Purchasing Department, 613 E. Ash, Room 111, Columbia, Mo 65201. Telephone: 573-886-4393 Facsimile: 573-886-4390

Delivery Terms: FOB- Destination with shipping and handling costs included, delivered to site of tower erection, 2121 County Drive, Columbia, MO 65202.

Bidder Responsibility – The Bidder is expected to be thoroughly familiar with all specifications and requirements of this Bid. Bidder’s failure or omission to examine any relevant form, article, site or document will not relieve them from any obligation regarding this Bid. By submitting a Response, Bidder is presumed to concur with all terms, conditions and specifications of this Bid.

Bid Addendum – If it becomes evident that this Bid must be amended, the Purchasing Department will issue a formal written Addendum to all known prospective Bidders. If necessary, a new due date will be established.

AWARD – Award will be made to the Bidder/s whose offer/s provide the greatest value to the County from the standpoint of suitability to purpose, quality, service, previous experience, price, lifecycle cost, ability to deliver, or for any other reason deemed by Purchasing to be in the best interest of the County.

Thus, the result will not be determined by price alone. The County will be seeking the least costly outcome that meets the County needs as interpreted by the County.

CONTRACT EXECUTION – This Bid and the Contractor’s Response will be made part of any resultant Contract and will be incorporated in the Contract as set forth, verbatim.

Precedence – In the event of contradictions or conflicts between the provisions of the documents comprising this Contract, they will be resolved by giving precedence in the following order:

- 1) the provisions of the Contract (as it may be amended);
- 2) the provisions of the Bid;
- 3) the provisions of the Bidder’s Response.

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS – Bidder agrees to be bound by the County’s standard “boilerplate” terms and conditions for Contracts, a sample of which is attached to this Bid.

2. Primary Specifications

ITEMS TO BE PROVIDED

1.00 GENERAL:

- 1.01 Vendor shall provide all resources and services to completely design, engineer, fabricate and deliver a radio tower in accordance with these specifications and all applicable EIA and manufacturer-recommended specifications.
- 1.02 Vendor shall deliver anchor bolts and anchor bolt template in advance of tower steel to the designated erection site at rear of 2121 County Drive, Columbia, MO 65202.
- 1.03 Vendor shall deliver complete tower, *less anchor bolts and template*, pre-packaged and knocked down, on flatbed truck(s) to the designated erection site at rear of 2121 County Drive, Columbia, MO 65202 following notification by Owner of foundation construction.
- 1.04 Knocked down, pre-packaged tower components to be unloaded from flatbed truck(s) by others.
- 1.05 Owner will secure all necessary construction and zoning permits.
- 1.06 Owner will furnish a graded road up to the actual tower unloading site.
- 1.07 All parts, materials and practices will meet at least the minimum generally published and publicly advertised standards of the Vendor.
- 1.08 Vendor shall warranty tower and include sample printed warranty with Bid Response.

2.00 DESIGN:

- 2.01 Tower shall be fabricated from steel material and shall be triangular in cross section.
- 2.02 Tower legs shall be round and fabricated from single solid rod. Composite legs, truss type legs, combination triangular legs, or hollow tube legs are **disallowed**.
- 2.03 All bracing shall be round solid rod or angle material.
- 2.04 Solid rod legs shall leave no cavities within the joint flange plates for water to accumulate.
- 2.05 Tower shall be designed, engineered and fabricated according to ANSI/EIA RS-222-G. However, if any requirement of this specification is more stringent then it shall apply.
- 2.06 Tower shall be designed assuming basic wind speed of 90 mph with 0" radial ice and 40 mph with 1" of radial ice.
- 2.07 Tower shall be designed as a Class III Structure.
- 2.08 Tower shall be designed with a 1.25 Importance Factor.
- 2.09 Tower shall be designed for Exposure Category C.
- 2.10 Tower shall be designed for Topographic Category I.
- 2.11 All tower components shall be hot dip galvanized after fabrication in accordance with ASTM A123.
- 2.12 All bolts shall conform to ASTM A-325 and shall be galvanized in accordance with ASTM A-153.
- 2.13 Welds made during fabrication shall be X-ray quality and conform to AISC and AWS standards.
- 2.14 At its own discretion, Owner may require the contractor to furnish copies of certification of welders employed in fabrication; mill tests of materials used in the structure; or report of X-ray examination of welds by an independent testing laboratory.
- 2.15 Tower shall be designed and fabricated so that erection may be accomplished using bolts with no field welding, cutting, or drilling required or allowed.
- 2.16 Vendor to guarantee structural analysis of proposed tower. Vendor agrees to reimburse Owner for professional fees in the event an independent tower engineering firm projects engineering/fabrication/material deficiency(ies) in Vendor's proposed products which causes rejection.
- 2.17 Tower shall be 175 feet in height from bottom of leg mounting plates to top of structural supporting steel.
- 2.18 Tower shall have a top-mounted three-sided full height platform attached above structural supporting steel.
- 2.19 Tower sections from elevation 120' and above to be straight vertical, not tapered.

3.00 LOADING AND ATTACHMENTS

3.01 Tower shall be designed for the following loads:

Item #	Elevation	Quantity	Brand/Make	Model
1	175' (Top Mounted)	1	Tower Mfg	Platform on top of tower
2	175'	3	Alive Telecom	ATC-GD1V40 – on platform corners
3	175'	6	Andrew	7/8" Heliac – two per Item #2 antenna
4	175'	3	Andrew	DB-222 – one centered on each platform face
5	175'	3	Andrew	7/8" Heliac – one per Item #4 antenna
6	175'-178'	3	Radiowaves	SP3-5.2 – one on each platform face
7	175'-178'	3	Andrew	5/8" Heliac – one per item #6 antenna
8	165'	2	Andrew	4' HP Microwave Dishes
9	165'	1	Andrew	6' HP Microwave Dish
10	165'	3	Andrew	EW-52 Elliptical Waveguide
11	150'	2	Andrew	4' HP Microwave Dishes
12	150'	1	Andrew	6' HP Microwave Dish
13	150'	3	Andrew	EW-52 Elliptical Waveguide
14	135'	2	Andrew	4' HP Microwave Dishes
15	135'	1	Andrew	6' HP Microwave Dish
16	135'	3	Andrew	EW-52 Elliptical Waveguide
17	125'	1	Tower Mfg.	Low Profile Cellular Platform
18	125'	12	Amphenol	5960110 Cellular Panel Antennas
19	125'	12	Andrew	1-5/8" Heliac
20	125'	3	Trade/Various	Cellular Tower Top Amps
21	125'	3	Andrew	1-5/8" Heliac
22	100'	3	Alive Telecom	ATC-GD1V40, one per leg
23	100'	3	Andrew	7/8" Heliac – one per item #22 antenna
24	30'-50'	3	Alive Telecom	ATC-GD1V40, one per leg
25	30'-50'	12	Andrew	1/2" Heliac

Item #1. Furnish top mounted nominal 14' platform with 3 x corner pipes for Item #2 antennas, 3 x face mounted nominal 2" pipes for Item #4 antennas, and 3 x face mounted nominal 4-1/2" pipes for Item #6 microwave dishes. Furnish platform with grate flooring, top railing, and toe boards.

Item #3. Each Item #2 antenna is fed with two of Item #3 feedlines.

Item #8 and Item #9. Furnish two microwave dish mounts for this elevation.

Item #11 and Item #12. Furnish two microwave dish mounts for this elevation.

Item #14 and Item #15. Furnish two microwave dish mounts for this elevation.

Item #18. Tower shall be designed for 12 heavy duty panel antennas plus brackets and stiff arms in support of high performance commercial carrier. See antenna specifications.

Item #20. Tower shall be designed for 3 heavy weight tower-top amplifiers in support of high performance commercial carrier.

Item #22. Furnish three whip antenna mounting brackets for attachment of Item #22 antennas to tower legs.

Item #24. Tower shall be designed to support three (one per leg) Item #2 Alive Telecom antennas. Furnish six (two per corner/leg) nominal 2' standoff brackets (upper and lower) to support antennas.

3.02 Furnish exterior climbing ladder with required standoffs.

3.03. Furnish safety cable kit for ladder, no harness.

3.04. Furnish three waveguide support ladders to support ultimate line load of 60 lines (assume initial 51 plus 9 additional ½" Heliac to 125' platform). Distribute waveguide ladders and feedline loads across three faces.

3.05. Furnish construction step bolts on all three legs to the nominal 50' level.

3.06. Furnish a suitable template, to be delivered with anchor bolts, for use by foundation contractor to locate, correctly space, and stabilize mounting bolts while constructing foundation.

4.00 ATTACHMENTS

4.01. Geotechnical analysis is attached for use by Vendor for foundation design. Test boring was taken at center point of tower. Based on soils report, Vendor is requested to offer Owner alternate foundation designs.

5.00 SUBMITTALS

The following items shall be submitted with the Bid Response:

5.01. Plan view and Elevation of proposed tower.

5.02. Tower section drawings showing all members, splice plate or flange details, and any additional information required to identify each component.

5.03. Drawings to include dimensions and weights of sections and weight of complete tower assembly.

5.04. Drawings of miscellaneous details including antenna mounts, top-mounted platform, waveguide ladder components, and standoff brackets.

5.05. Plan view and elevation of foundation. To include reinforcing bar size, quantity and position, concrete quantities and finishing techniques, and all other pertinent information. Vendor is encouraged to offer alternative foundation designs based on local conditions.

- 5.06. Structural analysis of tower. Such analyses to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of analyses showing calculations and stresses.
- 5.07. Foundation design. Such design(s) to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of design showing calculations and stresses.
- 5.08. Submit sample printed warranty with Bid Response.
- 5.09. Upon award of tower bid, Vendor shall furnish key erection drawings, fabrication and design drawings, all certified by a registered professional engineer, state of registry: Missouri.

3. Response Presentation and Review

RESPONSE CONTENT – In order to enable direct comparison of competing Responses, Bidder must submit Response in strict conformity to the requirements stated herein. Failure to adhere to all requirements may result in Bidder's Response being disqualified as non-responsive. All Responses must be submitted using the provided Response Sheet. Every question must be answered and if not applicable, the section must contain "N/A". Manufacturer's published specifications for the items requested shall be included with the response.

SUBMITTAL OF RESPONSES – Responses MUST be received by the date and time notes on the title page under "Bid Submission Information and Deadline". NO EXCEPTIONS. The County is not responsible for late or incorrect deliveries from the US Postal Service or any other mail carrier.

Advice of Award – If you wish to be advised of the outcome of this Bid, the results may be viewed on the County's web page at www.showmeboone.com.

BID OPENING – On the date and time and at the location specified on the title page, all Responses will be opened in public. Brief summary information from each will be read aloud, and any person present will be allowed, under supervision, to scan any Response. In the event only one bid is received by the date and time of the bid opening, County reserves the right to not open the bid and extend the Closing Date for the purpose of inviting bid responses from more vendors in the interest of establishing competition.

Removal from Vendor Database – If any prospective Bidder currently in our Vendor Database to whom the Bid was sent elects not to submit a Response and fails to reply in writing stating reason for not bidding, that Bidder's name may be removed from our database. Other reasons for removal include unwillingness or inability to show financial responsibility, reported poor performance, unsatisfactory service, or repeated inability to meet delivery requirements.

RESPONSE CLARIFICATION – The County reserves the right to request additional written or oral information from Bidders in order to obtain clarification of their Responses.

Rejection or Correction of Responses – The County reserves the right to reject any or all Responses. Minor irregularities or informalities in any Response which are immaterial or inconsequential in nature, and are neither affected by law nor at substantial variance with Bid conditions, may be waived at our discretion whenever it is determined to be in the County's best interest.

EVALUATION PROCESS – The County's sole purpose in the evaluation process is to determine from among the Responses received which one is best suited to meet the County's needs at the lowest possible cost. Any final analysis or weighted point score does not imply that one Bidder is superior to another, but simply that in our judgment the Contract selected appears to offer the best overall solution for our current and anticipated needs at the lowest possible cost.

Method of Evaluation – The County will evaluate submitted Responses in relation to all aspects of this Bid.

Acceptability – The County reserves the sole right to determine whether goods and/or services offered are acceptable for County use.

Endurance of Pricing – Bidder's pricing must be held until contract execution or 60 days, whichever comes first.

4. Response Form

Company Name: _____
 Address: _____
 City/Zip: _____
 Phone Number: _____
 E-Mail: _____
 Fax Number: _____

Federal Tax I.D. _____
 Corporation
 Partnership – Name _____
 Individual/Proprietorship – Individual Name _____
 Other (Specify) _____

4.00 PRICING

To furnish all resources, materials, and labor to completely design, engineer, fabricate and deliver FOB Destination to Columbia, MO a radio tower in accordance with these bid specifications and all applicable EIA and manufacturer-recommended specifications. **Refer to Primary Specifications.** Quoted cost below shall include key erection drawings, fabrication and design drawings, all certified by a registered professional engineer, state of registry: Missouri. State pricing as listed below:

4.01. Radio tower, designed, engineered, and fabricated per the above stated requirements.

_____ DOLLARS and _____ CENTS
 (Quoted cost in print)
 \$ _____ /LUMP SUM

4.02. Delivery of all items specified in this bid: _____ ARO (after receipt of order)

4.03. With this Bid Response, include the following:

- a. Plan View and Elevation of proposed tower.
- b. Tower section drawings showing all members, splice plate or flange details, and any additional information required to identify each component.
- c. Drawings to include dimensions and weights of sections and weight of complete tower assembly.
- d. Drawings of miscellaneous details including antenna mounts, top-mounted platform, waveguide ladder components, and standoff brackets.
- e. Plan view and elevation of foundation. To include reinforcing bar size, quantity and position, concrete quantities and finishing techniques, and all other pertinent information. Vendor may offer additional, alternative foundation designs based on local conditions. *If Vendor elects to submit additional, alternative foundation designs, clearly identify the submittal(s) as ALTERNATIVE 1, 2, etc. and supply all pertinent information, addressing all specifications and requirements listed in this bid.*
- f. Structural analysis of tower. Such analyses to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of analyses showing calculations and stresses.

- g. Foundation design. Such design(s) to be certified by a registered professional engineer, state of registry: Missouri. Furnish complete details of design showing calculations and stresses.
- h. Submit sample detailed printed warranty.

4.04. **Subcontracting:** If Vendor proposes to use subcontractors for this work, list the names of the firms and the work to be assigned in spaces below.

<u>Subcontractor Name/Address</u>	<u>Work Assigned</u>
_____	_____
_____	_____
_____	_____

4.05. **Debarment and Suspension:** By submission of its Bid Response, Vendor agrees to comply with the provisions of Executive Order 12549, regarding Debarment and Suspension. Specifically, the Vendor certifies that neither he/she nor their principals are 1.) presently debarred, suspended, proposed for debarment, declared ineligible or voluntary excluded from covered transactions by a Federal department or agency, 2) have not with a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property; 3.) are not presently indicted for or otherwise criminal or civilly charged by a government entity with commission of any of the offenses stated above and 4.) have not within a three year period preceding this bid had one or more public transactions terminated for cause or default.

4.06. **Certification of Non-Resident/Foreign Contractors:** If the Contractor is a foreign corporation or nonresident Contractor, it is agreed that the Contractor shall procure and maintain during the life of this contract:

- A. A certificate of authority to transact business in the State of Missouri from the Secretary of State, unless exempt pursuant to the provisions of Section 351.572 RSMo.
- B. A certificate from the Missouri Director of Revenue evidencing compliance with transient employer financial assurance law, unless exempt pursuant to the provisions of Section 285.230 RSMo.

4.07. The undersigned offers to furnish and deliver the articles or services as specified at the prices and terms stated and in strict accordance with all requirements contained in the Request for Bid which have been read and understood, and all of which are made part of this order. By submission of this bid, the vendor certifies that they are in compliance with Section 34.353 and, if applicable, Section 34.359 (Missouri Domestic Products Procurement Act) of the Revised Statutes of Missouri.

Authorized Representative (Sign By Hand):

_____ Date: _____

Print Name and Title of Authorized Representative:

STATEMENT OF BIDDER'S QUALIFICATIONS

Each bidder for the work included in the specifications and plans and the Contract Documents shall submit with their bid the data requested in the following schedule of information. This data must be included in and made a part of each bid document and be contained in the sealed envelope. Failure to comply with this instruction may be regarded as justification for rejecting the Contractor's proposal.

1. Name of Bidder: _____
2. Business Address: _____
3. When Organized: _____
4. When Incorporated: _____ 5. List federal tax identification number: _____
If not incorporated, state type of business (sole proprietor, partnership, or other) _____
6. Number of years engaged in business under present firm name: _____
7. If you have done business under a different name, please give name and business location under that name: _____
8. Percent of work done by own staff: _____
9. Have you ever failed to complete any work awarded to your company? If so, where and why? _____
10. Have you ever defaulted on a contract? _____ If so, give _____
11. List of contracts completed within the last three years for work similar in scope to that described in this bid, including value of each. _____
12. List of projects currently in progress: _____

*** Attach additional sheets as necessary ***



“No Bid” Response Form

Boone County Purchasing
613 E. Ash, Room 111
Columbia, MO 65201

Elizabeth Sanders, Senior Buyer
(573) 886-4393 – Fax: (573) 886-4390

“NO BID RESPONSE FORM”

**NOTE: COMPLETE AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO
SUBMIT A BID**

If you do not wish to respond to this bid request, but would like to remain on the Boone County vendor list for this service/commodity, please remove form and return to the Purchasing Department by mail or fax.

If you would like to FAX this “No Bid” Response Form to our office, the FAX number is (573) 886-4390.

**Bid: 14-24MAR15 – RADIO TOWER DESIGN, ENGINEERING,
FABRICATION SERVICES**

Business Name: _____

Address: _____

Telephone: _____

Contact: _____

Date: _____

Reason(s) for not bidding:



Boone County Purchasing
613 E. Ash, Room 111
Columbia, MO 65201

Standard Terms and Conditions

Elizabeth Sanders, Senior Buyer
Phone: (573) 886-4393 – Fax: (573) 886-4390

1. Contractor shall comply with all applicable federal, state, and local laws and failure to do so, in County's sole discretion, shall give County the right to terminate this Contract.
2. Responses shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department identified in the Request for Bid and/or Proposal.
3. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item-by-item basis, or an "all or none" basis, whichever is in the best interest of the County.
4. Bidders must use the bid forms provided for the purpose of submitting bids, must return the bid and bid sheets comprised in this bid, give the unit price, extended totals, and sign the bid. The Purchasing Director reserves the right, when only one bid has been received by the bid closing date, to delay the opening of bids to another date and time in order to revise specifications and/or establish further competition for the commodity or service required. The one (1) bid received will be retained unopened until the new Closing date, or at request of bidder, returned unopened for re-submittal at the new date and time of bid closing.
5. When products or materials of any particular producer or manufacturer are mentioned in our specifications, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
6. Do not include Federal Excise Tax or Sales and Use Taxes in bid process, as law exempts the County from them.
7. The delivery date shall be stated in definite terms, as it will be taken into consideration in awarding the bid.
8. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
9. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Bidder responsible for any excess cost occasioned thereby.
10. Failure to deliver as guaranteed may disqualify Bidder from future bidding.
11. Prices must be as stated in units of quantity specified, and must be firm. Bids qualified by escalator clauses may not be considered unless specified in the bid specifications.
12. No bid transmitted by fax machine or e-mail will be accepted.
13. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.
14. The County reserves the right to award to one or multiple respondents. The County also reserves the right to not award any item or group of items if the services can be obtained from a state or other governmental

entities contract under more favorable terms.

15. The County, from time to time, uses federal grant funds for the procurement of goods and services. Accordingly, the provider of goods and/or services shall comply with federal laws, rules and regulations applicable to the funds used by the County for said procurement, and contract clauses required by the federal government in such circumstances are incorporated herein by reference. These clauses can generally be found in the Federal Transit Administration's Best Practices Procurement Manual – Appendix A. Any questions regarding the applicability of federal clauses to a particular bid should be directed to the Purchasing Department prior to bid opening.
16. In the event of a discrepancy between a unit price and an extended line item price, the unit price shall govern.
17. Should an audit of Contractor's invoices during the term of the Agreement, and any renewals thereof, indicate that the County has remitted payment on invoices that constitute an over-charging to the County above the pricing terms agreed to herein, the Contractor shall issue a refund check to the County for any over-charges within 30-days of being notified of the same.
18. **For all titled vehicles and equipment the dealer must use the actual delivery date to the County on all transfer documents** including the Certificate of Origin (COO,) Manufacturer's Statement of Origin (MSO,) Bill of Sale (BOS,) and Application for Title.
19. **Equipment and serial and model numbers** - The contractor is strongly encouraged to include equipment serial and model numbers for all amounts invoiced to the County. If equipment serial and model numbers are not provided on the face of the invoice, such information may be required by the County before issuing payment.

INSTRUCTIONS FOR COMPLIANCE WITH HOUSE BILL 1549

House Bill 1549 addresses the Department of Homeland Security's and the Social Security Administration's E-Verify Program (Employment Eligibility Verification Program) that requires the County to verify "lawful presence" of individuals when we contract for work/service; verify that contractor has programs to verify lawful presence of their employees when contracts exceed \$5,000; and a requirement for OSHA safety training for public works projects.

The County is required to obtain certification that the bidder awarded the attached contract participates in a federal work authorization program. To obtain additional information on the Department of Homeland Security's E-Verify program, go to:

<http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243c6a7543f6d1a/?vgnextoid=75bce2e261405110VgnVCM1000004718190aRCRD&vgnnextchannel=75bce2e261405110VgnVCM1000004718190aRCRD>

Please complete and return form *Work Authorization Certification Pursuant to 285.530 RSMo* if your contract amount is in excess of \$5,000. **Attach to this form the first and last page of the *E-Verify Memorandum of Understanding* that you completed when enrolling.**

CERTIFICATION OF INDIVIDUAL BIDDER

Pursuant to Section 208.009 RSMo, any person applying for or receiving any grant, contract, loan, retirement, welfare, health benefit, post secondary education, scholarship, disability benefit, housing benefit or food assistance who is over 18 must verify their lawful presence in the United States. Please indicate compliance below. Note: A parent or guardian applying for a public benefit on behalf of a child who is citizen or permanent resident need not comply.

- _____ 1. I have provided a copy of documents showing citizenship or lawful presence in the United States. (Such proof may be a Missouri driver's license, U.S. passport, birth certificate, or immigration documents). Note: If the applicant is an alien, verification of lawful presence must occur prior to receiving a public benefit.

- _____ 2. I do not have the above documents, but provide an affidavit (copy attached) which may allow for temporary 90 day qualification.

- _____ 3. I have provided a completed application for a birth certificate pending in the State of _____. Qualification shall terminate upon receipt of the birth certificate or determination that a birth certificate does not exist because I am not a United States citizen.

Applicant

Date

Printed Name

AFFIDAVIT
(Only Required for Individual Bidder Certification Option #2)

State of Missouri)
)SS.
County of _____)

I, the undersigned, being at least eighteen years of age, swear upon my oath that I am either a United States citizen or am classified by the United States government as being lawfully admitted for permanent residence.

Date

Signature

Social Security Number
or Other Federal I.D. Number

Printed Name

On the date above written _____ appeared before me and swore that the facts contained in the foregoing affidavit are true according to his/her best knowledge, information and belief.

Notary Public

My Commission Expires:

(Please complete and return with Bid)

Certification Regarding
Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98 Section 98.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988, Federal Register (pages 19160-19211).

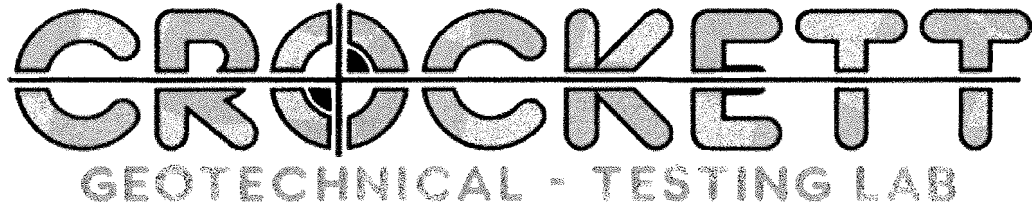
(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS FOR CERTIFICATION)

- (1) The prospective recipient of Federal assistance funds certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective recipient of Federal assistance funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Name and Title of Authorized Representative

Signature

Date



**GEOTECHNICAL ENGINEERING REPORT
FOR
BOONE COUNTY JOINT COMMUNICATIONS**

**175' TALL SELF-SUPPORT
911 RADIO TOWER
COLUMBIA, MISSOURI**

JANUARY 30, 2015

Crockett GTL Project Number: G14076.1

500 Big Bear Blvd. • Columbia, MO 65202
Phone: 573-447-3981
www.CrockettGTL.com

CROCKETT

GEOTECHNICAL - TESTING LAB

500 Big Bear Boulevard
Columbia, Missouri 65202
(573) 447-3981

January 30, 2015

Boone County Joint Communications
17 N. 7th Street
Columbia, MO 65201

Attn: Mr. Dave Dunford

Re: Geotechnical Engineering Report
175' Tall Self-Support 911 Radio Tower
Columbia, Missouri
Crockett GTL Project Number: G14076.1

Dear Mr. Dunford.

Crockett Geotechnical - Testing Lab (Crockett GTL) has completed the geotechnical engineering services for the referenced project. This report should be read in its entirety. Our services were performed in general accordance with our emailed proposal scope dated December 18, 2014. This report presents the results of our field explorations, laboratory testing, and recommendations for design and construction of the referenced project.

Please note this is a revised report to replace the report dated January 26, 2015. The revision was made to correct the tower height.

We appreciate the opportunity to be of service and look forward to working with you during the construction phase of this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,



Shane Steinman, E.I.
Project Manager



Eric H. Lidholm, P.E.
Principal Engineer
Missouri: E-23265



Enclosures

cc: 1 - Client (.PDF)
1 - File

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APPENDIX

- Site Location Map
- Boring Location Plan
- Boring Logs
- Boring Log Legend and Nomenclature

Geotechnical Engineering Report
175' Tall Self-Support 911 Radio Tower
Columbia, Missouri
Crockett GTL Project Number: G14076.1
January 30, 2015

1 INTRODUCTION

Crockett Geotechnical - Testing Lab (CGTL) has conducted a geotechnical exploration for the proposed development. The purpose of our exploration was to:

- characterize and evaluate the subsurface conditions,
- provide design and construction recommendations for:
 - earthwork
 - foundations
 - seismic considerations

Our services were performed in general accordance with our emailed proposal scope dated December 18, 2014.

2 SITE AND PROJECT INFORMATION

2.1 SITE LOCATION AND DESCRIPTION

Item	Description
Location	A new self-support tower (SST) will be located near existing Boone County Sherriff's office at 2121 County Drive in Columbia, Missouri.
Approximate GPS Coordinates	Latitude: 39.004478° Longitude: -92.308318°
Existing improvements	This tower site is undeveloped.
Current ground cover	Lawn area.
Existing topography	Relatively level at the tower site.

2.2 PROJECT DESCRIPTION

Item	Description
Proposed structures	Self-Support Tower, 175 feet tall
Estimated loads (assumed)	Vertical: 200 kips Shear: 19 kips Moment: N/A Uplift: 150 kips
Grading (approximate)	For this proposal we have assumed site grading to consist of less than approximately 2 feet of fill and up to 10 feet of cut.
Cut and fill slopes	Final slopes are assumed to be no steeper than 3H:1V (Horizontal to Vertical)
Free-standing retaining walls	None.
Below grade areas	None.

3 SUBSURFACE CONDITIONS

3.1 FIELD EXPLORATION AND LABORATORY TESTING

One (1) boring was drilled for this project at the approximate location indicated on the Boring Location Plan included in the Appendix of this report. The boring location was designated by client and was staked in the field by others. The boring elevation was estimated by using the topographic information available on the Boone County Parcel Viewer [website](#). The boring location should be considered accurate only to the degree implied by the means and methods used to define them.

The boring was drilled with a truck mounted drill rig. Representative samples were obtained using thin-walled tube and split-barrel tube sampling procedures.

The samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification. Information provided on the boring log attached to this report includes soil descriptions, consistency evaluations, boring depth, sampling intervals, and groundwater conditions. The boring was backfilled with auger cuttings prior to the drill crew leaving the site.

The field log was prepared by the drill crew. The final boring log included with this report represents the engineer's interpretation of the field log and includes modifications based upon laboratory tests and observation made of the samples. The descriptions of the soil on the final

boring log is in general accordance with the Unified Soil Classification System which is included in the Appendix of this report.

Detailed information regarding the material encountered and the results of field sampling and laboratory testing are shown on the Boring Logs included in the Appendix of this report.

3.2 ENCOUNTERED SUBSURFACE CONDITIONS

Topsoil was encountered to a depth of about 6-inches. Topsoil thickness should be expected to vary elsewhere on the site.

Below the surficial material was undocumented fill which was underlain by topsoil. The undocumented fill extended to an approximate depth of 9 feet. The underlying buried topsoil was about 1-foot in thickness. The buried topsoil was low strength and extremely brittle.

Underlying the buried topsoil was lean to fat clay that was visually identified as glacial drift. Cobbles and boulders were encountered within the glacial drift from about 22 to 27 feet in depth. The boring terminated within the glacial drift upon achieving split-spoon sampler refusal at a depth of 39.6 feet.

Detailed descriptions of the encountered materials are listed on the boring log included in the Appendix of this report. Strata lines indicate the approximate location of changes in material types. The transition between material types may be gradual.

3.3 GROUNDWATER

Groundwater was not encountered in the boring while drilling, at completion of drilling, or for the short duration the boring was allowed to remain open after the completion of drilling. However, this does not necessarily mean the boring terminated above groundwater. Due to the low permeability of the soils encountered in the borings, a relatively long period of time may be necessary for a groundwater level to develop and stabilize in a borehole in these materials.

Pockets, lenses, and stringers of sand are sometimes encountered in the glacial soils found in the vicinity of the referenced project. These sand pockets are normally discontinuous and often contain water of variable quality and quantity. These sand pockets may be encountered during foundation excavation.

Perched groundwater can develop over low permeability soil or rock strata following periods of heavy or prolonged precipitation. This possibility should be considered when developing design and construction plans and specifications for the project. Groundwater levels depend on seasonal and climatic variations and may be present at different levels in the future. In addition,

without extended periods of observation, accurate groundwater level measurements may not be possible, particularly in low permeability soils.

The boreholes were backfilled prior to departing the project site. Groundwater records are indicated on the boring logs included in the Appendix of this report.

4 GEOTECHNICAL RECOMMENDATIONS

4.1 EARTHWORK

At the completion of stripping and grubbing, we recommend the exposed subgrade be thoroughly evaluated before the start of any fill operations. We recommend the geotechnical engineer be retained to evaluate the bearing material for the foundations and subgrade soils. Subsurface conditions, as identified by the field and laboratory testing programs have been reviewed and evaluated with respect to the proposed project plans known to us at this time.

4.1.1 Existing Undocumented Fill and Buried topsoil

Existing undocumented fill and buried topsoil was encountered to about 10 feet in depth in the boring. The undocumented fill and buried topsoil is not suitable for the support of shallow foundations and should be removed and replaced with new structural fill if a shallow foundation system is utilized to support the proposed self-support tower. The overexcavation should occur under all foundations and should extend at least 5 feet outside of the shallow foundation footprint.

Based upon what was encountered in the boring, it appears then existing undocumented fill would be suitable for reuse as new structural fill if moisture conditioned and recompacted. We recommend the owner establish unit rates for complete removal and replacement of the undocumented fill.

The undocumented fill and buried topsoil could remain in place should a drilled pier foundation system be used.

4.1.2 Site Preparation

All existing utility backfill, and any otherwise unsuitable material should be removed from the construction areas prior to placing structural fill. After stripping and grubbing, the site should be proofrolled to aid in locating loose or soft areas. Proofrolling can be performed with a loaded tandem axle dump truck. Soft, wet, dry and low-density soil should be removed or be moisture conditioned and recompacted in place as structural fill prior to placing new structural fill.

Where fill is placed on existing slopes steeper than 5H:1V, benches should be cut into the existing slopes prior to fill placement. The benches should have a vertical face height of 1 to 3 feet and should be cut wide enough to accommodate the compaction equipment. We recommend structural fill slopes be overfilled and then cut back to develop an adequately compacted slope face.

4.1.3 Structural Fill Requirements

Compacted structural fill should consist of approved materials free of organic matter and debris. Frozen material should not be used and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted for evaluation prior to use.

Structural Fill Requirements		
Material Type	USCS Classification	Acceptable Uses
Lean Clay and Clayey Sand	CL & SC (LL<40)	All locations
Lean to Fat Clay	CL-CH (40<LL<50)	All locations
Fat Clay	CH (LL≥50+)	All locations
Soil Fill Lift Thickness	9 inches or less when using heavy self-propelled compaction equipment 6-inches or less when using hand guided or light self-propelled equipment	
Soil Compaction Requirements	95% of standard Proctor dry density (ASTM D-698)	
Compaction Moisture Content Requirements	<ul style="list-style-type: none"> • Cohesive • Granular Optimum moisture content to 4% above the standard Proctor optimum moisture content Workable moisture content. Shall not pump when proofrolled	

4.1.4 Grading and Drainage

Final surrounding grades should be sloped away from the structure on all sides to prevent ponding of water. Collected water should discharge at least 10 feet beyond the footprint of the tower support structure.

4.1.5 Earthwork Construction

In periods of dry weather, the surficial soils may be of sufficient strength to allow fill construction on the stripped and grubbed ground surface. However, unstable subgrade conditions could develop if the soils are wet or subjected to repetitive construction traffic. Should unstable subgrade conditions be encountered, stabilization measures will need to be employed.

Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and pavement construction.

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork/fill placement and to perform necessary tests and observations during subgrade preparation; proof-rolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of building floor slabs.

4.2 FOUNDATION RECOMMENDATIONS

The subsurface data obtained from the boring was analyzed to evaluate potential foundation design alternatives. It is our professional opinion the self-support tower can be supported by either a shallow, spread footing foundation system bearing on newly placed compacted structural fill or by a drilled pier foundation system bearing within the native clay. The equipment building can be supported by a shallow foundation system bearing on stiff native clay or compacted structural fill. Design recommendations and construction considerations for shallow foundations follow:

4.2.1 Shallow Foundation Design Recommendations

Shallow Foundation Design Recommendations	
Net allowable bearing pressure – Tower ¹	2,500 psf ¹
Net allowable bearing pressure – Equipment Building ²	1,500 psf ²
1. Assumes the existing undocumented fill and buried topsoil has been remediated as described in section 4.1.1 of this report. 2. Assumes equipment building will bear on the undocumented fill.	
Allowable overstress for transient loads (i.e. snow, wind, seismic)	33%
Ultimate passive pressure (equivalent fluid pressure)	270 pcf
1. The sides of the spread footing foundation excavations must be nearly vertical and the concrete should be placed neat against the vertical faces for the passive earth pressure values to be valid. 2. Passive resistance in the frost zone should be neglected. 3. Some movement of the footing will be required to mobilize resistance from passive pressure and sliding friction.	
Coefficient of sliding friction	0.32

Shallow Foundation Design Recommendations	
Minimum embedment below finished grade for frost protection	30 inches
Approximate Settlement <ul style="list-style-type: none"> • Total • Differential 1. Foundation settlement will depend upon the variations within the subsurface soil profile, the towers structural loading conditions, the embedment depth of the footings, the thickness of compacted fill (if any), and the quality of the earthwork operations.	< 1 inch < 3/4 inch

Uplift resistance for spread footing foundations may be computed as the sum of the effective weight of the foundation element and the effective weight of the soil overlying the foundation. We recommend using a soil unit weight of 120 pounds per cubic foot (pcf) for structural fill overlying the footing placed as described in this section of this report. A unit weight of 150 pcf could be used for reinforced footing concrete. We recommend a minimum factor of safety of 1.5 be utilized for uplift calculations.

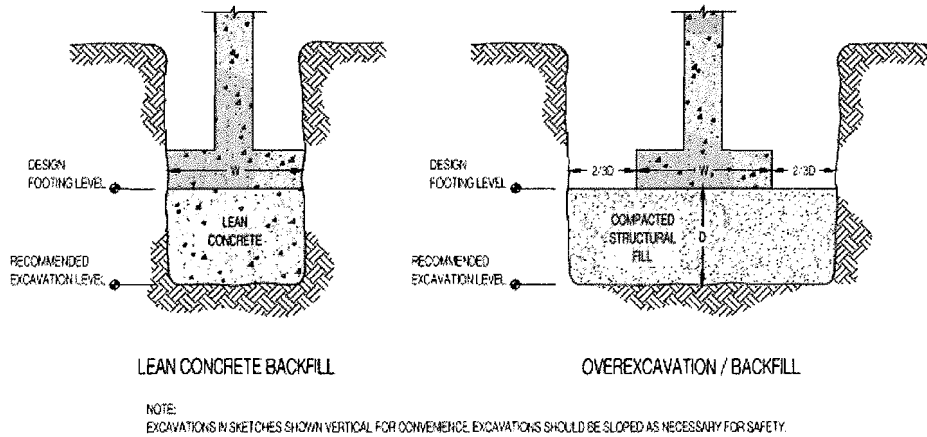
4.2.2 Shallow Foundation Construction Considerations

The base of all foundation excavations should be free of water and loose soil and rock prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soil at the foundation bearing level become excessively dry, disturbed, saturated, or frozen the affected soil should be removed prior to placing concrete. Place a lean concrete mud-mat over the bearing soils if the excavations must remain open over night or for an extended period of time. It is recommended the geotechnical engineer be retained to observe and test the soil foundation bearing materials.

Although groundwater was not encountered at or above the anticipated shallow foundation bearing elevation, it may be encountered during foundation excavation. In addition, some surface and/or perched groundwater may enter foundation excavations during construction. It is anticipated any water entering foundation excavations from these sources can be removed using sump pumps or gravity drainage.

If unsuitable bearing soils are encountered in footing excavations, the excavations should be extended deeper to suitable soils and the footings should bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The footings could also bear on properly compacted backfill extending down to the suitable soils. Overexcavation for compacted backfill placement below footings should extend laterally beyond all edges of the footings at least 8 inches per foot of overexcavation depth below footing base elevation. The overexcavation should then be backfilled up to the footing base elevation with well graded

granular material placed in lifts of 9 inches or less in loose thickness and compacted to at least 98 percent of the material's maximum standard effort maximum dry density (ASTM D 698). The lean concrete backfill and overexcavation-and-backfill procedures are described in the diagram below.



4.2.3 Drilled Pier Foundation Design Recommendations

The proposed structure can be founded on straight shaft drilled piers bearing in suitable glacial drift. The design parameters provided in the following table are based on the results of field and laboratory testing, published values, and our past experience with similar soil conditions.

Approximate Depth (feet) ¹	Allowable Skin Friction (psf) ²	Allowable End Bearing Pressure (psf) ³	Allowable Passive Pressure (psf) ²	Cohesion (psf)	Strain ϵ_{60} (in./in) ⁴	Lateral Subgrade Modulus (pci) ⁴
0 - 3	Ignore	Ignore	Ignore	Ignore	Ignore	Ignore
3 - 9	200 ²	NR ⁵	1,000	1,000	0.012	250
9 - 10	80 ²	NR ⁵	400	400	0.018	50
10 - 28	550 ²	8,000 ³	2,750	2,750	0.006	900
28 - 40	800 ²	12,000	4,000	4,000	0.005	1,300

1. A moist unit weight of 120 psf can be used for soil.
 CGTL should observe pier excavations to evaluate whether conditions are consistent with those encountered in our boring.

2. The skin friction and passive pressure values are based on a constant (rectangular) pressure distribution for cohesive soils and bedrock.

- Skin friction and passive pressure should be neglected within 3 feet of the final grade.
3. Minimum pier length of 4 diameters or 15 feet, whichever is greater, is required. CGTL should be contacted if the pier length is less than four times the pier diameter as modifications to our design parameters may be warranted.
 4. Lateral subgrade modulus and strain values are to be utilized with LPILE software.
 5. NR = Not Recommended

Drilled piers should have a minimum shaft diameter of 30 inches. The above-indicated cohesion values are ultimate values without factors of safety. The end bearing, skin friction, and passive resistance are allowable parameters with factors of safety. The values given in the above table are based on our boring and past experience with similar material types.

4.2.4 Drilled Pier Foundation Construction Considerations

Cobbles and boulders were encountered in the borehole. Because of this, difficult pier drilling conditions could be encountered. Special drilling techniques may be required to penetrate potential gravel and cobble/boulder zones that could be encountered in the glacial drift materials.

Temporary casing may be needed to advance drilled pier excavations. Temporary casing should also be installed when personnel enter the shafts to clean and/or test the bearing surface.

For proper performance of the drilled pier foundation system, it is critical for the bottom of pier excavations to be cleaned of any water and loose material prior to placing reinforcing steel and concrete. A minimum shaft diameter of at least 30 inches is required for entry of construction and testing personnel, and to facilitate clean-out and possible dewatering of the pier excavation.

Concrete should be placed soon after excavating to minimize bearing surface disturbance. Any water accumulating in the pier excavation should be pumped from the excavation or the water level should be allowed to stabilize and then concrete should be placed using the tremie method.

If concrete will be placed as the temporary casing is being removed, we recommend the concrete mixture be designed with a slump of about 5 to 7 inches to reduce the potential for arching when removing the casing. While removing the casing from a pier excavation during concrete placement, the concrete inside the casing should be maintained at a sufficient level to resist any earth and hydrostatic pressures outside the casing during the entire casing removal procedure.

We recommend a CGTL engineer or their representative be present on a full-time basis during drilling activities to evaluate the materials removed from the drilled pier excavations to determine when adequate capacity has been developed, to observe the base of the drilled pier to

determine that the cuttings have been adequately removed, and also to observe the concreting techniques.

Although obvious signs of harmful gases such as methane, carbon monoxide, etc., were not noted in the boring during the geotechnical drilling operations, gas could be encountered in the drilled shaft excavations during construction. The contractor should check for gas and/or oxygen deficiency prior to any workers entering the excavation for observation and manual cleanup.

4.3 SEISMIC CONSIDERATIONS

The 2012 International Building Code requires the average properties in the upper 100 feet of the subsurface profile a site profile determination extending a depth of 100 feet for seismic site classification. The drilling scope performed for this project had one boring that extended to a maximum depth of approximately 40 feet.

Seismic Site Classification	
Code Used	2012 International Building Code (IBC)
Site Classification	D

Additional exploration to greater depths could be considered to confirm the conditions below the current depth of exploration. Alternatively, a geophysical exploration could be utilized in order to attempt to justify a more favorable seismic site class.

5 GENERAL COMMENTS

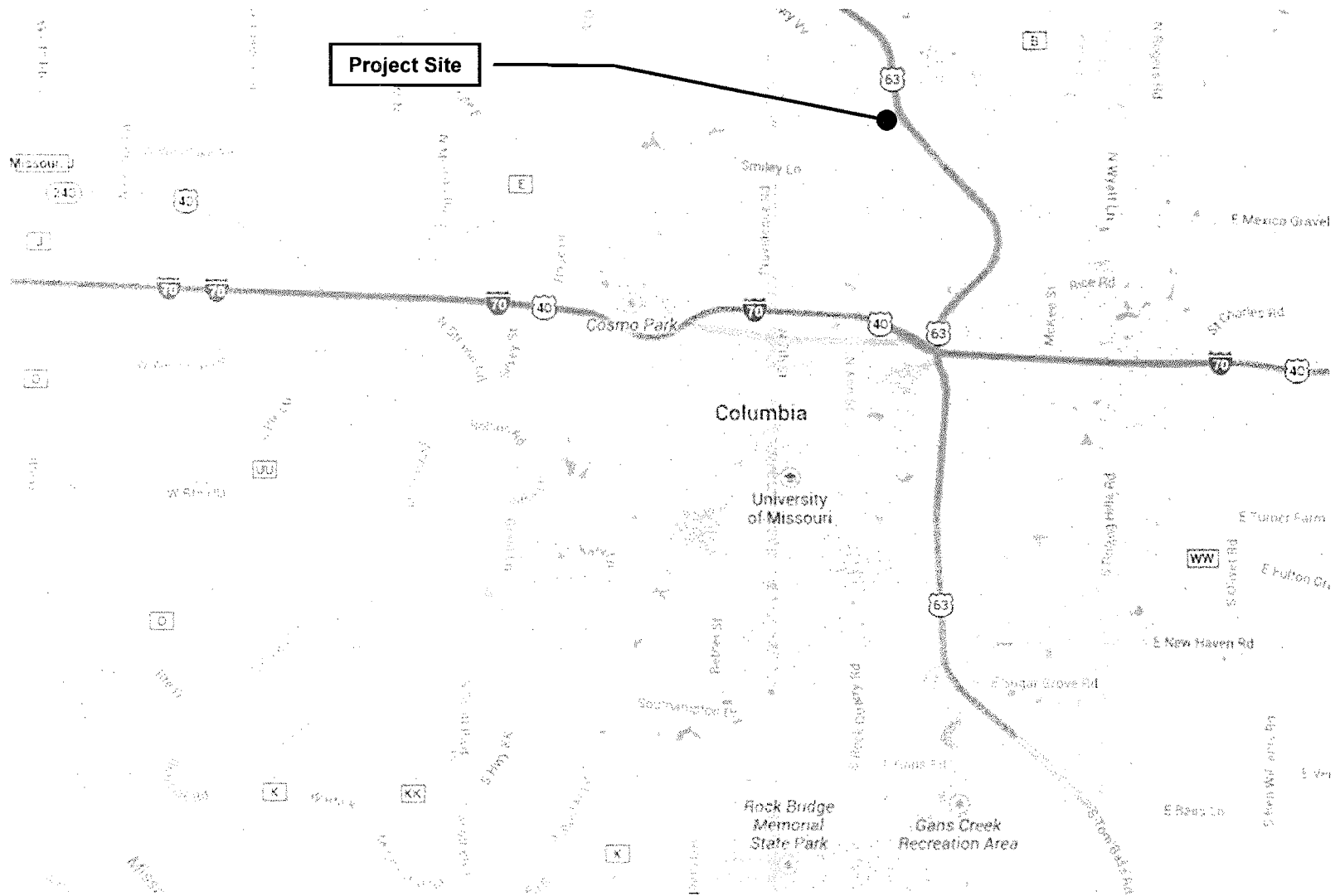
The recommendations provided herein are for the exclusive use of our client. Our recommendations are specific only to the project described herein and are not meant to supersede more stringent requirements of local ordinances or codes. The recommendations are based on subsurface information obtained at our boring locations, sample locations, our understanding of the project as described in this report, and geotechnical engineering practice consistent with the current standard of care. No warranty is expressed or implied. CGTL should be contacted if conditions encountered are not consistent with those described.

CGTL should be provided with a set of final plans and specifications, once they are available, to review whether our recommendations have been understood and applied correctly and to assess the need for additional exploration or analysis. Failure to provide these documents to

CGTL may nullify some or all of the recommendations provide herein. In addition, any changes in the planned project or changes in site conditions may require revised or additional recommendations on our part.

The final part of our geotechnical service should consist of direct observation during construction to observe that conditions actually encountered are consistent with those described in this report and to assess the appropriateness of the analyses and recommendations contained herein. CGTL cannot assume liability or responsibility for the adequacy of recommendations without being retained to observe construction.

APPENDIX

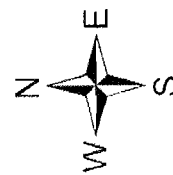
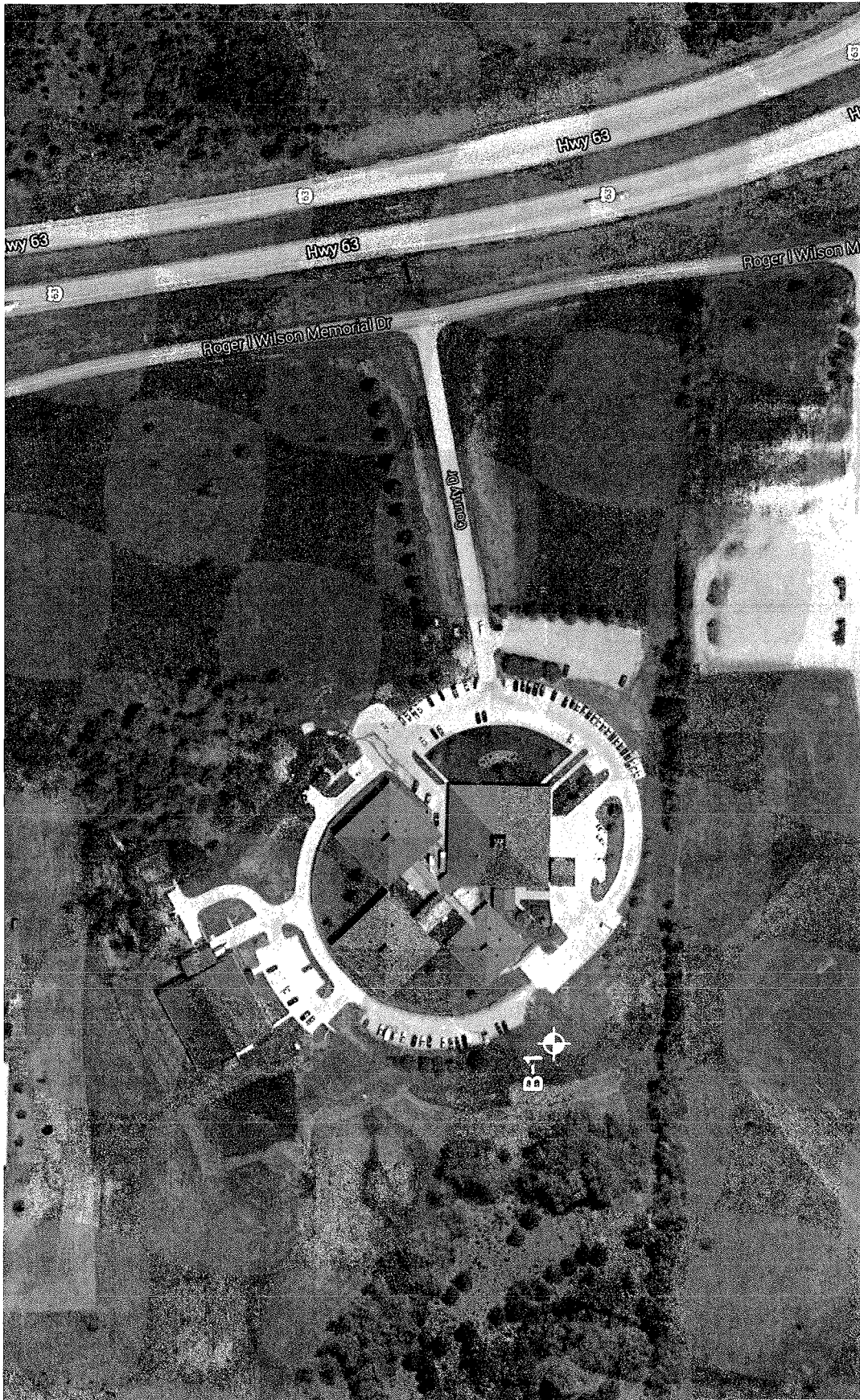


PROJECT NO.: G14076.1

SITE LOCATION MAP

**175' TALL SELF-SUPPORT 911 RADIO TOWER
COLUMBIA, MISSOURI**

Prepared By:
CROCKETT
GEO TECHNICAL TESTING LAB
 500 Big Bear Blvd.
 Columbia, MO 65202
 573-447-3981
www.CrockettGTL.com



PROJECT NO.: G14076.1

BORING LOCATION PLAN

175' TALL SELF-SUPPORT 911 RADIO TOWER
COLUMBIA, MISSOURI

Prepared By:
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Crockett Geotechnical - Testing Lab
500 Big Bear Boulevard
Columbia, MO 65202
Telephone: 573-447-3981



CLIENT Columbia/Boone County Joint Communications
PROJECT NUMBER G14076.1
DATE STARTED 1/16/15 **COMPLETED** 1/16/15
DRILLING CONTRACTOR IPES
DRILLING METHOD 4" SSA
LOGGED BY Lidholm **CHECKED BY** Lidholm
NOTES Borehole backfilled upon completion

PROJECT NAME 911 Self Support Radio Tower
PROJECT LOCATION Columbia, Missouri
GROUND ELEVATION 796 ft **HOLE SIZE** 4"
GROUND WATER LEVELS:
AT TIME OF DRILLING --- Not Encountered
AT END OF DRILLING --- Not Encountered
AFTER DRILLING --- Not Encountered

SAMPLE LENGTH REPORT - LAT-LONG TEMPLATE.GDT - 1/30/15 10:27 - C:\SERVER FILES\GEOTECH GENERAL\PROJECTS\2014\G14076 - BOCCOMO SHERIFF CELL TOWERS\SUPPORTING DOCUMENTS\REVISED REPORT\G14076

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY LENGTH	BLOW COUNTS (N VALUE)	POCKET PEN. (psf)	UNC. COMP. (psf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS		
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0		TOPSOIL (6-inches)										
0.5		795.5										
		UNDOCUMENTED FILL: Fat clay, brown with gray, trace sand and gravel, trace rust stains	ST 1	14		2000			20			
			ST 2	24		2500	1740	104	23			
5												
9.0		787.0	ST 3A	12		2000	1590	98	25			
10.0		786.0	ST 3B	12					22			
		TOPSOIL (12-inches): Dark brown to black, root hairs, friable Organic Content = 3.4%										
		LEAN TO FAT CLAY: Brown, trace to with gray, trace to with sand and gravel, trace rust stains, very stiff (glacial drift)	ST 4	22		6500	6510	114	18			
15												
20			SPT 5	18	9-11-14 (25)	5500			20			
		--: with cobbles and occassional boulders from 22' to 27'										
25			SPT 6	17	5-20-50/4"	6500			22			
30			SPT 7	13	17-12-16 (28)	9000			17			
31.0		765.0										
		LEAN TO FAT CLAY: Dark brown, trace gray, trace to with sand and gravel, very stiff to hard (glacial drift)	SPT 8	18	8-10-13 (23)	9000			22			
35												
39.6		756.4	SPT 9	10	8-25-50/1"	8000			20			
Split Spoon Sampler Refusal on Apparent Boulder at 39.6 feet. Bottom of borehole at 39.6 feet.												

BORING LOG LEGEND AND NOMENCLATURE

Sample Type	Description
AU	Auger sample, disturbed, obtained from auger cuttings
NR	No recovery or lost sample
RC	Rock core, diamond core bit, nominal 2-inch diameter rock sample (ASTM D 2113)
ST	Thin walled (Shelby) tube sample, relatively undisturbed (ASTM D 1587)
SPT	Split spoon sample, disturbed (ASTM D 1586)
VA	Shear vane (ASYM D 2753)

Grain Size Terminology	
Boulders	Larger than 12-inches
Cobbles	3-inches to 12-inches
Gravel	Retained on #4 sieve to 3-inches
Sand	Retained on #200 sieve but passes #4 sieve
Silt or Clay	Passes #200 sieve

Descriptor	Relative Proportion of Sand and Gravel	Relative Proportion of Fines
Trace	Less than 15% by dry weight	Less than 5% by dry weight
With	15% to 30% by dry weight	5% to 12% by dry weight
Modifier	More than 30% by dry weight	More than 12% by dry weight

Relative Density of Coarse grained Soils	
Descriptive Term	SPT N-Value, Blows/Foot
Very Loose	0 - 3
Loose	4 - 9
Medium Dense	10 - 29
Dense	30 - 49
Very Dense	50+

Consistency of Fine Grained Soils		
Descriptive Term	SPT N-Value, Blows/Foot	Unconfined Compressive Strength, psf
Very Soft	0 - 2	0 - 500
Soft	2 - 3	500 - 1,000
Medium	4 - 9	1,000 - 2,000
Stiff	10 - 29	2,000 - 4,000
Very Stiff	30 - 49	4,000 - 8,000
Hard	50+	8,000+

USCS Soil Classification System				
Major Divisions			Group Symbol	Group Name
coarse grained soils more than 50% retained on #200 sieve	gravel ≥50% of coarse fraction retained on #4 (4.75 mm) sieve	clean gravel ≤5% small than #200 sieve	GW	well-graded gravel, fine to coarse gravel
			GP	poorly graded gravel
		gravel with ≥12% fines	GM	silty gravel
			GC	clayey gravel
	sand ≥50% of coarse fraction passes #4 (4.75 mm) sieve	clean sand	SW	well-graded sand, fine to coarse sand
			SP	poorly graded sand
		sand with ≥12% fines	SM	silty sand
			SC	clayey sand
fine grained soils more than 50% passes #200 sieve	silt and clay liquid limit < 50	inorganic	ML	silt
			CL	clay
	silt and clay liquid limit ≥ 50	organic	OL	organic silt, organic clay
		inorganic	MH	silt of high plasticity, elastic silt
			CH	clay of high plasticity, fat clay
		organic	OH	organic clay, organic silt
highly organic soils			PT	peat

Weathering	Description of Rock Properties
Fresh	No discoloration. Not oxidized.
Slightly weathered	Discoloration or oxidation of most surfaces but or short distance from fractures
Moderately weathered	Discoloration or oxidation extends from fractures, usually throughout. All fractured surfaces are oxidized or discolored.
Severely weathered	Discoloration or oxidation throughout. All fractured surfaces are oxidized or discolored. Surfaces are friable.
Decomposed	Resembles a soil. Partial or complete remnant rock structure may be present.

Rock Quality Designator (RQD)	
RQD, %	Rock Quality
90 - 100	Excellent
75 - 90	Good
50 - 75	Fair
25 - 50	Poor
0 - 25	Very poor

Joint, Bedding, and Foliation Spacing in Rock		
Spacing	Joints	Bedding/Foliation
< 2-inches	Very close	Very thin
2-inches - 1-foot	Close	Thin
1-foot - 3-feet	Moderately Close	Medium
3-feet - 10-feet	Wide	Thick
> 10-feet	Very Wide	Very thick

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Sabre Communications Corporation
DUNS: 084621382 CAGE Code: 60348
Status: Active

2101 Murray St
Sioux City, IA, 51111-1149 ,
UNITED STATES

Expiration Date: 05/29/2015
Purpose of Registration: All Awards

Entity Overview

Entity Information

Name: Sabre Communications Corporation
Business Type: Business or Organization
POC Name: Phillip Haigler
Registration Status: Active
Activation Date: 05/29/2014
Expiration Date: 05/29/2015

Exclusions

Active Exclusion Records? No

SAM | System for Award Management 1.0

IBM v1.P.27.20150327-1711

WWW8

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JASON KANDER

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We recommend you do not include these for other searches.

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Business Name Includes names Starting With Only Active Corporations

SEARCH

Search Results as of 4/20/2015 12:28 PM

Business Name	Charter No.	Type	Status	Created	Registered Agent Name
<u>SABRE COMMUNICATIONS CORPORATION</u>	<u>F00510077</u>	Gen. Business - For Profit (Foreign)	Good Standing	6/17/2002	<u>JEFF CITY FILING</u>

JASON KANDER

MISSOURI
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Gen. Business - For Profit Details as of 4/20/2015

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Filing Type Amended Articles Accepting Professional Corp

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General Information	Filings	Address	Contact(s)
<p>Name(s) SABRE COMMUNICATIONS CORPORATION</p> <p>Type Gen. Business - For Profit</p> <p>Domesticity Foreign</p> <p>Registered Agent JEFF CITY FILING 222 E DUNKLIN STE. 102 JEFFERSON CITY, MO 65101</p> <p>Duration Perpetual</p> <p>Report Due 8/31/2015</p>		<p>Address 7101 Southbridge Drive Sioux City, IA 51111</p> <p>Charter No. F00510077</p> <p>Home State IA</p> <p>Status Good Standing</p> <p>Date Formed 6/17/2002</p>	

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CERTIFIED COPY OF ORDER

STATE OF MISSOURI

} ea.

April Session of the April Adjourned

Term. 20 15

County of Boone

In the County Commission of said county, on the

28th

day of April

20 15

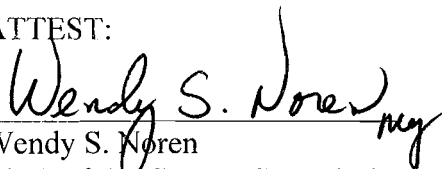
the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby approve Sole Source Contract 118-123115SS with TX-RX Systems, Inc. of Angola, NY to purchase Radio Signal Filtering Equipment for the new Radio Tower per attached Term & Supply Purchase Agreement.

It is further ordered the Presiding Commissioner is hereby authorized to sign said Sole Source Fact Sheet and Term & Supply Purchase Agreement for Radio Signal Equipment.


Done this 28th day of April, 2015

ATTEST:

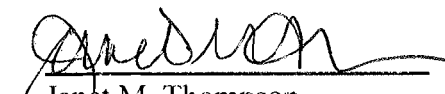

Wendy S. Noren
Clerk of the County Commission


Daniel K. Atwill

Presiding Commissioner


Karen M. Miller

District I Commissioner


Janet M. Thompson

District II Commissioner

Boone County Purchasing

Melinda Bobbitt, CPPB
Director



613 E.Ash, Room 110
Columbia, MO 65201
Phone: (573) 886-4391
Fax: (573) 886-4390

MEMORANDUM

TO: Boone County Commission
FROM: Melinda Bobbitt, CPPB
DATE: April 21, 2015
RE: Sole Source Approval – 118-123115SS – Radio Signal Filtering
Equipment – Term & Supply

Attached is a Sole Source Request Form from our Radio Consultant, Dave Dunford, to purchase Radio Signal Filtering Equipment for the new Radio Tower from TX-RX Systems, Inc. (a unit of Bird Technologies) of Angola, NY.

The radio signal filtering equipment is considered sole source due to the purchase of alternate brand products would bring a different technology design resulting in the present system hardware not being able to be expanded, altered, or upgraded and any system expansion or change would require an entire equipment change out.

This equipment is used in land mobile/two-way radio systems to 1) pass desired signals; 2) reject undesired signals; 3) combine multiple transmitters onto common antennas; and 4) combine multiple receivers onto common antennas.

The equipment will be purchase from department 4101 – ECC Radio & Technology, account 71201 – Construction Costs. \$9,570.96 is budgeted.

The intent to purchase as sole source was advertised in the Missourian and Tribune on March 5, 2015.

ATT Sole Source Request

cc: Dave Dunford, Radio Consultant
Sole Source File

Budget Analyst: Heather Aiken 4101-
Subtotal: 69,570.96
Order # 5070

Boone County Purchasing

Melinda Bobbitt, CPPO, CPPB
Director of Purchasing



613 E. Ash, Rm 110
Columbia, MO 65201
Phone: (573) 886-4391
Fax: (573) 886-4390

SOLE SOURCE/NO SUBSTITUTE FACT SHEET

Originating Office	Public Safety Joint Communications
Person Requesting	David O. Dunford
Date Requested	1-1-2015
Contact Phone Number	913-208-9561

UPON COMPLETION OF THIS FORM, PLEASE SUBMIT TO THE PURCHASING DEPARTMENT.

PURCHASING DEPARTMENT APPROVAL: Melinda Bobbitt Signature Date 1-15-15

SOLE SOURCE NUMBER: 118-12311555
(Assigned by Purchasing)

COMMISSION APPROVAL: David O. Dunford Signature Date 4-28-15

Expiration Date: 20 through 12/31 2015 *on going* One Time Purchase (check)

Vendor Name	<u>Tx-Rx Systems, Inc. (a unit of Bird Technologies)</u>
Vendor Address	<u>8625 Industrial Parkway, Angola, NY 14006-9692</u>
Vendor Phone and Fax	<u>PH: 716-549-4700 FX: 716-549-4772 Contact: Andrew Johnson</u> <u>Ext. 5062</u>
Product Description	<u>Radio Signal Filtering Equipment Tx Rx</u>
Estimated Cost	<u>Expected Purchase for 2015 approximately \$35,000</u>
Department/Account Number(s) Invoices Will Be Paid	<u>Partials: New 9-1-1 Center, Capital Project Budget 2015, CPS Agreement</u>

The following is a list of questions that must be answered when making sole source requests. This is a formal document for submission to the County Commission. If a question is not applicable, please indicate N/A. Use layman's terms and avoid jargon and the use of acronyms.

- Please check the reason(s) for this sole request:
 - Only Known Source-Similar equipment or material not available from another vendor
 - Equipment or materials must be compatible with existing Equipment
 - Immediate purchase necessary to correct situation threatening life/property
 - Lease Purchase - Exercise purchase option on lease
 - Medical device or supply specified by physician
 - Used Equipment - Within price set by one/two appraisal(s) by disinterested party(ies)

- Other - List (attach additional sheets if necessary)
-

2. Briefly describe the commodity/material you are requesting and its function.
Used in land mobile/two-way radio system to (1) pass desired signals (2) reject undesired signals (3) combine multiple transmitters onto common antennas (4) combine multiple receivers onto common antennas.
3. Describe the unique features/compatibility of the commodity/material that precludes competitive bidding. Mechanical and electrical performance with existing system equipment is important to accommodate any future system changes, improvements and upgrades.
4. What research has been done to verify this vendor as the only known source?
The existing system presently employs this equipment at all sites.
5. Does this vendor have any distributors, dealers, resellers, etc. that sell the commodity/material?
 Yes (please attach a list of known sources)
 No
Purchase may be made through distributors but is discouraged for two reasons: (1) As a self-maintained system user, County of Boone buys the products at -28% discount, the same discount rate as distributors (2) By purchasing directly from manufacturer, County of Boone receives additional technical engineering services and expedited order handling.
6. Must this commodity/material be compatible with present inventory/equipment, or in compliance with the manufacturer's warranty or existing service agreement? If yes, please explain.
These products should be mechanically and electrically compatible with existing system components to allow adequate system servicing and to provide uniformity of system changes. This product uses unique technology which is advantageous to County of Boone.
7. If this is an initial purchase, what are the future consequences of the purchase? That is, once this purchase is approved and processed, what additional upgrades/additions/supplies/etc. are anticipated/projected over the useful life of this product?
Most of this equipment is passive and has an extended lifetime. Components 'inherited' from the former system that were purchased nearly twenty years ago are still in reliable service.
8. If this is an upgrade/add-on/supply/repair/etc. to existing equipment, how was the original equipment purchased (sole source or competitive bid)? What additional, related, sole source purchases have occurred since the initial purchase? Please state previous purchase order number(s).
A considerable number of these components were found in the original systems in the City. In the process of system upgrade, a sole source justification was presented and accepted by City of Columbia to continue the same brand of products.
9. How has this commodity/material been purchased in the past? (Sealed Bid, Sole Source, RFP, other)
Please provide document numbers.
For the Columbia/Boone County system this type equipment has been purchased under sole source authorization from City of Columbia.
10. What are the consequences of not securing this specific commodity/material?
Unfortunately, the purchase of alternate brand products would bring a different technology design. The result would be that none of the present system hardware could be expanded, altered or upgraded – and that any system expansion or change would require a wholesale equipment change out.

Customized to us to be unique to our equipment.

Page 2

The components are the same but the assembly is not the same.

11. List any other information relevant to the acquisition of this commodity/material (additional sheets may be attached, if necessary).

11. How long is sole source approval necessary for this type of purchase? Is this a one-time purchase or is there an identified time period needed?
Request that sole-source approval be regularly reviewed but an extended usage period is expected.

Boone County Purchasing

Melinda Bobbitt, CPPO
Director of Purchasing



613 E. Ash St.-Rm 110
Columbia, MO 65201
Phone (573) 886-4391
Fax (573) 886-4390

To: Susan Richison (884-0003)
twitchells@missouri.edu

From: Melinda Bobbitt, Director of Purchasing

RE: Advertisement for Sole Source Purchase

Date: March 3, 2015

The following is a sole source purchase advertisement. Please call if you have any questions.

NOTICE OF INTENT TO MAKE SINGLE FEASIBLE SOURCE PURCHASE

Boone County believes there is only a single feasible source from which to purchase the following and intends to make a single feasible source purchase unless viable competition is established. Please contact the Boone County Purchasing Department if you can supply the following:

Radio Signal Filtering Equipment from TXRX Systems, Inc. of Angola, NY to match existing equipment in Boone County Joint Communications

To receive additional information or to express an interest in providing the above, please contact the Purchasing Department by **1:30 p.m. on March 19, 2015**. Boone County Purchasing Department, 613 E. Ash, Columbia, MO 65201.

Information is available in the Purchasing Office by phone: (573) 886-4391; fax (573) 886-4390 or e-mail: mbobbitt@boonecountymo.org.

Melinda Bobbitt, CPPO
Director, Boone County Purchasing

Insertion date: Thursday, March 5, 2015
COLUMBIA MISSOURIAN

Page : 1 of 1 03/03/2015 16:26:17
Order Number : 30991636
PO Number :
Customer : L8864390 Boone Co. Purchasing
Contact :
Address1 : 613 East Ash
Address2 :
City St Zip : Columbia MO 65201
Phone : (573) 886-4392
Fax : (573) 886-4390
Credit Card :
Printed By : Richison, Susan
Entered By : Richison, Susan
Keywords : Radio Signal Filtering Equipment from TXRX Systems
Notes :
Zones :

Ad Number : 31002672
Ad Key : 30991636
Salesperson : 67 - Legal Acct
Publication : Columbia Missourian
Section : Classified Section
Sub Section : Classified Section
Category : Legal Notices 1300
Dates Run : 03/05/2015-03/05/2015
Days : 1
Size : 1 x 2.70, 27 lines
Words : 137
Ad Rate : Open
Ad Price : 17.55
Amount Paid : 0.00
Amount Due : 17.55

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Melinda Bobbitt, CPPO
 Director, Boone County Purchasing
 Insertion date: Thursday, March 5, 2015

Boone County Purchasing

Melinda Bobbitt, CPPO
Director of Purchasing



613 E. Ash St.-Rm 110
Columbia, MO 65201
Phone (573) 886-4391
Fax (573) 886-4390

To: Ruby Kuhler
rwheeler@tribmail.com

From: Melinda Bobbitt, Director of Purchasing

RE: Advertisement for Sole Source Purchase

Date: March 3, 2015

The following is a sole source purchase advertisement. Please call if you have any questions.

NOTICE OF INTENT TO MAKE SINGLE FEASIBLE SOURCE PURCHASE

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Information is available in the Purchasing Office by phone: (573) 886-4391; fax (573) 886-4390 or e-mail: mbobbitt@boonecountymo.org.

Melinda Bobbitt, CPPO
Director, Boone County Purchasing

Insertion date: Thursday, March 5, 2015
COLUMBIA TRIBUNE

Melinda Bobbitt - RE: Sole Source Ad for Radio Signal Filtering Equipment

From: "Kuhler, Ruby" <rgkuhler@columbiatribune.com>
To: "Melinda Bobbitt" <MBobbitt@boonecountymo.org>
Date: 3/4/2015 8:35 AM
Subject: RE: Sole Source Ad for Radio Signal Filtering Equipment
Attachments: 2023470.pdf

Melinda:

I have attached a copy of the notice as it will appear tomorrow 3/5. Total cost is \$32.76.

Please review the attached proof closely and make the following notations:

- If changes are required, mark them clearly on the proof; either email changes or and fax to 815-1851
- If no changes are required, please email confirmation

CANCELLATION POLICY

Please be advised that if a legal notice is cancelled prior to publication, a \$35.00 production fee will be charged. Cancellations or changes made within the duration of the ad will be effective for the next available publication according to our deadlines (typically 72 – 96 hours prior to publication, depending on publication date). Cancellation instructions MUST be faxed to 573-815-1851. If you do not receive confirmation from us that the notice has been cancelled, it is your responsibility to follow up on the cancellation request by calling 573-815-1855. The Columbia Daily Tribune will not be liable for cancellation discrepancies if these procedures are not followed.

Thanks,

Ruby

Ruby Kuhler
Classified Advertising Manager
Columbia Daily Tribune / ColumbiaTribune.com PO Box 798, Columbia, MO 65205
Ph 573.815.1859
Fx 573.815.1851

TRIBUNE CLASSIFIEDS
The Market Leader

From: Melinda Bobbitt [mailto:MBobbitt@boonecountymo.org]
Sent: Tuesday, March 03, 2015 4:26 PM
To: Kuhler, Ruby
Subject: Sole Source Ad for Radio Signal Filtering Equipment

**NOTICE OF INTENT TO MAKE
SINGLE FEASIBLE
SOURCE PURCHASE**

Boone County believes there is only a single feasible source from which to purchase the following and intends to make a single feasible source purchase unless viable competition is established. Please contact the Boone County Purchasing Department if you can supply the following:

**Radio Signal Filtering Equipment
from TXRX Systems, Inc.
of Angola, NY to match existing
equipment in Boone County
Joint Communications**

To receive additional information or to express an interest in providing the above, please contact the Purchasing Department by 1:30 p.m. on March 19, 2015. Boone County Purchasing Department, 613 E. Ash, Columbia, MO 65201.

Information is available in the Purchasing Office by phone: (573) 886-4391; fax (573) 886-4390 or e-mail:

mbobbitt@boonecountymo.org

Melinda Bobbitt, CPPPO
Director, Boone County Purchasing

INSERTION DATE: March 5, 2015

**PURCHASE AGREEMENT
FOR
Radio Signal Equipment – Term and Supply**

THIS AGREEMENT dated this 28th day of April, 2015, by and between Boone County, Missouri, a first class county and political subdivision of the state of Missouri through its County Commission, (herein "Owner") and **Tx Rx Systems Inc. (a unit of Bird Technologies)** (herein "Vendor").

IN CONSIDERATION OF the performance of the services rendered under this Agreement and payment for such services, the parties agree to the following:

1. **Contract Documents** - This agreement shall consist of this Purchase Agreement for **Radio Signal Equipment – Term and Supply**, agreement number **118-123115SS**, Standard Contract Terms and Conditions- Boone County, Missouri and Statement of Vendor's Qualifications. All such documents shall constitute the contract documents which are incorporated herein by reference. In the event of conflict between any of the foregoing documents, this Purchase Agreement and Boone County Standard Terms and Conditions shall prevail and control over the Contractor's quote response(s).

2. **Agreement duration** – This contract shall be in effect beginning with date of Agreement and shall extend for one year, subject to the provisions for termination specified below. This agreement may be extended beyond the expiration date by order of the County in writing for **four (4) additional one year periods**.

2. **Purchase** - The County agrees to purchase from the Vendor and the Vendor agrees to furnish and deliver to the County **Radio Signal Equipment at 28% discount from vendor published list price** as needed and ordered by the County. County will obtain quote(s) for needed equipment throughout the contract period, and Vendor submitted quote shall list both the list price and the discounted price.

3. **Delivery** - Vendor agrees to deliver equipment within six (6) weeks after Receipt of Order. **Delivery Terms** - All deliveries shall be made FOB Destination with freight prepaid and charged back. The seller pays the freight and charges back the buyer by adding the freight charges to the invoices. A copy of the actual freight bill should be attached to the invoices as evidence of correct freight billing.

4. **Warranty** – Signal Booster II and Signal Booster III Type Bi-Directional Amplifier's shall have a five (5) year warranty and VHF and custom Models shall have a one (1) year warranty.

5. **Billing and Payment** - All billing shall be invoiced to the Boone County respective ordering Department and billings may only include the prices listed in the vendor's quote response. No additional fees for paper work processing, labor, or taxes shall be included as additional charges in excess of the charges in the Vendor's quote response to the specifications. The County agrees to pay all invoices within thirty days of receipt. In the event of a billing dispute, the County reserves the right to withhold payment on the disputed amount; in the event the billing dispute is resolved in favor of the Vendor, the County agrees to pay interest at a rate of 9% per annum on disputed amounts withheld commencing from the last date that payment was due.

6. **Governing Law** - This agreement shall be governed by the laws of the state of Missouri and it is agreed that this agreement is made in Boone County, Missouri and that Boone County, Missouri is proper venue for any action pertaining to the interpretation or enforcement of any provision within or services performed under this agreement.

7. **Miscellaneous** - This agreement constitutes the entire agreement of the parties superseding all prior negotiations, written or verbal, and may only be amended by signed writing executed by the parties through their authorized representatives hereunder.

8. **Binding Effect** - This agreement shall be binding upon the parties hereto and their successors and assigns for so long as this agreement remains in full force and effect.

9. **Termination** - This agreement may be terminated by the County upon thirty days advance written notice for any of the following reasons or under any of the following circumstances:

- a. County may terminate this agreement due to material breach of any term or condition of this agreement, or
- b. County may terminate this agreement if in the opinion of the Boone County Commission if delivery of products are delayed or products delivered are not in conformity with bidding specifications or variances authorized by County, or
- c. If appropriations are not made available and budgeted for any calendar year, or
- d. County may terminate this agreement for convenience by providing the Contractor with 60 days written notice.

IN WITNESS WHEREOF the parties through their duly authorized representatives have executed this agreement on the day and year first above written.

TX RX SYSTEMS INC.
(a unit of Bird Technologies)

by [Signature]
title Vice President of Sales

BOONE COUNTY, MISSOURI

by: Boone County Commission
[Signature]
Daniel K. Atwill, Presiding Commissioner

APPROVED AS TO FORM:

[Signature]
County Counselor

ATTEST:

[Signature]
Wendy S. Noren, County Clerk

In accordance with RSMo 50.660, I hereby certify that a sufficient unencumbered appropriation balance exists and is available to satisfy the obligation(s) arising from this contract. (Note: Certification of this contract is not required if the terms of this contract do not create a measurable county obligation at this time.)

June Pittsford by HA No Encumbrance 4-21-15 4101-71201 - Term and Supply
 Signature Required Date Appropriation Account

STANDARD CONTRACT TERMS AND CONDITIONS - BOONE COUNTY, MISSOURI

1. Contractor shall comply with all applicable federal, state, and local laws and failure to do so, in County's sole discretion, shall give County the right to terminate this Contract.
2. Prices shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department.
3. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item-by-item basis, or an "all or none" basis, whichever is in the best interest of the County. The Purchasing Director reserves the right, when only one bid has been received by the bid closing date, to delay the opening of bids to another date and time in order to revise specifications and/or establish further competition for the commodity or service required. The one (1) bid received will be retained unopened until the new Closing date, or at request of bidder, returned unopened for re-submittal at the new date and time of bid closing.
4. When products or materials of any particular producer or manufacturer are mentioned in our contracts, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
5. Do not include Federal Excise Tax or Sales and Use Taxes in billing, as law exempts the County from them.
6. The delivery date shall be stated in definite terms.
7. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
8. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Contractor responsible for any excess cost occasioned thereby.
9. Failure to deliver as guaranteed may disqualify Contractor from future bidding.
10. Prices must be as stated in units of quantity specified, and must be firm.
11. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.
12. The County reserves the right to award to one or multiple respondents. The County also reserves the right to not award any item or group of items if the services can be obtained from a state or other governmental entities contract under more favorable terms.
13. The County, from time to time, uses federal grant funds for the procurement of goods and services. Accordingly, the provider of goods and/or services shall comply with federal laws, rules and regulations applicable to the funds used by the County for said procurement, and contract clauses required by the federal government in such circumstances are incorporated herein by reference. These clauses can generally be found in the Federal Transit Administration's Best Practices Procurement Manual – Appendix A. Any questions regarding the applicability of federal clauses to a particular bid should be directed to the Purchasing Department prior to bid opening.

14. In the event of a discrepancy between a unit price and an extended line item price, the unit price shall govern.
15. Should an audit of Contractor's invoices during the term of the Agreement, and any renewals thereof, indicate that the County has remitted payment on invoices that constitute an over-charging to the County above the pricing terms agreed to herein, the Contractor shall issue a refund check to the County for any over-charges within 30-days of being notified of the same.
16. **For all titled vehicles and equipment the dealer must use the actual delivery date to the County** on all transfer documents including the Certificate of Origin (COO,) Manufacturer's Statement of Origin (MSO,) Bill of Sale (BOS,) and Application for Title.
17. **Equipment and serial and model numbers** - The contractor is strongly encouraged to include equipment serial and model numbers for all amounts invoiced to the County. If equipment serial and model numbers are not provided on the face of the invoice, such information may be required by the County before issuing payment.

USER NAME PASSWORD

[Forgot Username?](#) [Forgot Password?](#)

[Create an Account](#)

Entity Dashboard

Tx Rx Systems Inc.
 DUNS: 030217491 CAGE Code: 59809
 Status: Active

8625 Industrial Pkwy
 Angola, NY, 14006-9692,
 UNITED STATES

Expiration Date: 07/15/2015
 Purpose of Registration: All Awards

[Entity Overview](#)

[Entity Record](#)

[Core Data](#)

[Assertions](#)

[Reps & Certs](#)

[POCs](#)

[Reports](#)

[Service Contract Report](#)

[BioPreferred Report](#)

[Exclusions](#)

[Active Exclusions](#)

[Inactive Exclusions](#)

[Excluded Family Members](#)

[RETURN TO SEARCH](#)

Entity Overview

Entity Information

Name: Tx Rx Systems Inc.
Business Type: Business or Organization
POC Name: Roy Strube
Registration Status: Active
Activation Date: 07/15/2014
Expiration Date: 07/15/2015

Exclusions

Active Exclusion Records? No

SAM | System for Award Management 1.0

IBM v1.P.24.20150116-1831

WWW8

Note to all Users: This is a Federal Government computer system. Use of this system constitutes consent to monitoring at all times.



STATEMENT OF VENDOR'S QUALIFICATIONS

1. Name of Vendor: Bird Technologies Group, Inc.

Business Address: 30303 Aurora Rd., Selon, OH 44139

Telephone Number: 440-248-1200 Fax Number: 440-248-5426

When Organized: 1942 When Incorporated: 1963

If not incorporated, state type of business and provide your federal tax identification number:

2. Number of years in business: 73 If not under present firm name, list previous firm names and types of organizations.

Bird Engineering Company - unincorporated

3. Contracts on hand: (Complete the following schedule)

Item	Purchaser	Amount of Contract	Percent Completed
------	-----------	--------------------	-------------------

4. General type of product sold and manufactured:

RF Power measurement and conditioning equipment.

5. There has been no default in any contract completed or un-completed except as noted below:

(a) Number of contracts on which default was made: _____

(b) Description of defaulted contracts and reason therefore:

6. List banking references:

See attached reference sheet

7. Upon request, will you within 3 (three) days file a detailed confidential financial statement?

Yes X No _____

Dated at SOLON OHIO USA
this 20TH day of April, 2005.

BIRD TECHNOLOGIES / TRX SYSTEMS
Name of Organization(s)

By [Signature]
(Signature)

VP + CFO
(Title of person signing)

Electronic Bank Transfer information for payments to:

**TX RX Systems Inc.
8625 Industrial Pkwy
Angola NY 14006 USA**

In order to transfer funds to our account, please supply your bank with the following information:

Account Name: TX RX Systems Inc.

**Bank name and address: KEY Bank
50 Fountain Plaza
Buffalo NY 14202
Phone: 716-947-9230**


Account Number: 3278 6000 9635

ABA Code: 021 300 077

SWIFT Number: KEYBUS33

**Should you need assistance with our Accounts Receivable Department
Please call Bea Baszynski at 440-519-2242 or fax 440-248-4005**

Thank You for your business

USER NAME PASSWORD 

[Forgot Username?](#) [Forgot Password?](#)

[Create an Account](#)

Entity Dashboard

Tx Rx Systems Inc.
 DUNS: 030217491 CAGE Code: S9809
 Status: Active

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 Angola, NY, 14006-9692,
 UNITED STATES

Expiration Date: 07/15/2015
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[Entity Overview](#)

[Entity Record](#)

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Exclusions

Active Exclusion Records? No



CERTIFIED COPY OF ORDER

STATE OF MISSOURI }
 County of Boone } ea.

April Session of the April Adjourned

Term. 20 15

In the County Commission of said county, on the 28th day of April 20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby acknowledge the following budget amendment for the Collector's Office to cover the transfer of the excess tax maintenance fund balance to the general fund per RSMo 52.317.

Department	Account	Department Name	Account Name	Decrease \$	Increase \$
2110	83917	Collector Tax Maintenance	OTO: To General Fund		24,641
1190	3917	Non-Departmental	OTI: From Special Revenue		24,641
					49,282

Done this 28th day of April, 2015.

ATTEST:

Wendy S. Noren
 Wendy S. Noren
 Clerk of the County Commission

Daniel K. Atwill
 Daniel K. Atwill
 Presiding Commissioner

Karen M. Miller
 Karen M. Miller
 District I Commissioner

Janet M. Thompson
 Janet M. Thompson
 District II Commissioner

REQUEST FOR BUDGET AMENDMENT

BOONE COUNTY, MISSOURI

RECEIVED

4-13-15

APR 13 2015

EFFECTIVE DATE

FOR AUDITORS USE

BOONE COUNTY AUDITOR

Department					Account					Department Name	Account Name	(Use whole \$ amounts)	
												Decrease	Increase
2	1	1	0		8	3	9	1	7	Collector Tax Maint	OTO: To General Fund		24,641.
1	1	9	0		0	3	9	1	7	Non-Departmental	OTI: From Special Rev		24,641


Describe the circumstances requiring this Budget Amendment. Please address any budgetary impact for the remainder of this year and subsequent years. (Use attachment if necessary): **Covering the transfer of the excess tax maintenance fund balance to the general fund per RSMo 52.317.** 49,282



Requesting Official

TRNSFR TX MNTE FNDS TO GEN FND

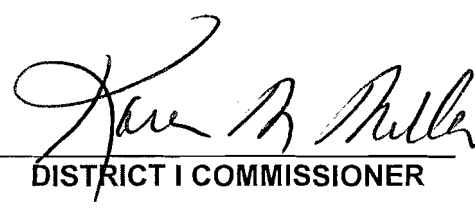
TO BE COMPLETED BY AUDITOR'S OFFICE

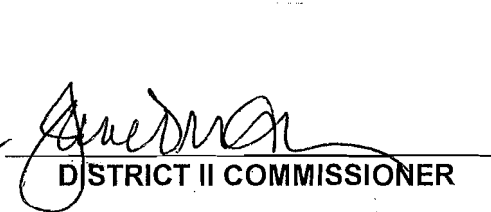
- A schedule of previously processed Budget Revisions/Amendments is attached.
- A fund-solvency schedule is attached.
- Comments:


Auditor's Office


PRESIDING COMMISSIONER

Agenda


DISTRICT I COMMISSIONER


DISTRICT II COMMISSIONER

BUDGET AMENDMENT PROCEDURES

- County Clerk schedules the Budget Amendment for a first reading on the commission agenda. A copy of the Budget Amendment and all attachments must be made available for public inspection and review for a period of at least 10 days commencing with the first reading of the Budget Amendment.
- At the first reading, the Commission sets the Public Hearing date (at least 10 days hence) and instructs the County Clerk to provide at least 5 days public notice of the Public Hearing. **NOTE: The 10-day period may not be waived.**
- The Budget Amendment may not be approved prior to the Public Hearing.

Tax Maintenance Fund-- Determination of Transfer of Fund Balance to General Fund

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Fund Balance Dec 31,	\$ 305,569	288,091	277,954 ✓	-	-	-	-	-	-	-
Maximum Fund Balance	240,855	249,580	253,313 ✓	-	-	-	-	-	-	-
Amount to be Transferred	64,714	38,511	24,641 ✓	-	-	-	-	-	-	-
	Transferred	Transferred	Transferred							

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Approved Budget (with final revisions)	\$ 481,710	499,160	506,625 ✓	-	-	-	-	-	-	-
50% Max Fund Balance (RSMo 52.317)	240,855	249,580	253,313 ✓	-	-	-	-	-	-	-

GENLSCR DOONE GENERAL LEDGER INQUIRY MAIN SCREEN 7/10/10 10:04:04
 Year, 2014 Opening Balance, 288,091.49
 Fund, 211 COLLECTOR TAX MAINTENANCE FUND Actual, YTD, Credits, _____
 Acct, 2913 BEG FUND BAL (UNRESERVED) Actual, YTD, Debits, _____
 Account Type, Q EQUITY _____
 Normal Balance, C CREDIT Current Balance, 288,091.49

Period	Debits	Credits	Current Balance
January			288,091.49
February			288,091.49
March			288,091.49
April			288,091.49
May			288,091.49
June			288,091.49
July			288,091.49
August			288,091.49
September			288,091.49
October			288,091.49
November			288,091.49
December			288,091.49
Post Closing			

F2=Key Scr F3=Exit F5=Ledger Transactions F7=Transactions

Rev 197,666.25
 Exp (207,803.98)

 Ending Fund Balance 277,953.76 ✓

GENLSCR DOONE GENERAL LEDGER INQUIRY MAIN SCREEN 12/10/14 10:04:40
 Year, 2014 Opening Balance
 Fund 211 COLLECTOR TAX MAINTENANCE FUND Actual, YTD, Credits, 285,649.15
 Acct, 2906 REVENUE CONTROL Actual, YTD, Debits, 87,982.90
 Account Type Q EQUITY
 Normal Balance C CREDIT Current Balance 197,666.25

Period	Debits	Credits	Current Balance
January	87,038.02	8,405.40	78,632.62
February		50,203.50	28,429.12
March	333.20	29,140.20	377.88
April		21,294.49	21,672.37
May		15,162.56	36,834.93
June	65.62	13,585.74	50,355.05
July	116.37	11,827.94	62,066.62
August		12,447.14	74,513.76
September	170.17	13,297.92	87,641.51
October		6,148.54	93,790.05
November	33.88	5,956.93	99,713.10
December	225.64	98,178.79	197,666.25
Post Closing			

F2=Key Scr F3=Exit F5=Ledger Transactions F7=Transactions

Year, 2014 Opening Balance
 Fund, 211 COLLECTOR TAX MAINTENANCE FUND Actual, YTD, Credits, 76.50
 Acct, 2905 EXPENDITURE CONTROL Actual, YTD, Debits, 207,880.48
 Account Type Q EQUITY
 Normal Balance, D DEBIT Current Balance, 207,803.98

Period	Debits	Credits	Current Balance
January	24,334.13		24,334.13
February	9,397.45	46.50	33,685.08
March	11,804.64		45,489.72
April	11,651.45		57,141.17
May	49,910.54		107,051.71
June	11,502.47		118,554.18
July	14,323.00	30.00	132,847.18
August	16,796.62		149,643.80
September	11,031.46		160,675.26
October	11,743.73		172,418.99
November	11,632.41		184,051.40
December	23,752.58		207,803.98
Post Closing			

F2=Key Scr F3=Exit F5=Ledger Transactions F7=Transactions

LEDGER YEAR	DEPT	Department Name	ACCOUNT CLASS	ACCOUNT	ACCOUNT NAME	ORIGINAL BUDGET	CURRENT BUDGET	ACTUAL REV/EXP	REMAINING BALANCE
2013	1150	COLLECTOR	10000	10100	SALARIES & WAGES	324,814.00	324,814.00	316,917.43	7,896.57
	1150	COLLECTOR		10110	OVERTIME	3,825.00	3,825.00	1,225.82	2,599.18
	1150	COLLECTOR		10200	FICA	25,140.00	25,140.00	23,445.26	1,694.74
	1150	COLLECTOR		10300	HEALTH INSURANCE	33,250.00	33,250.00	33,250.00	.00
	1150	COLLECTOR		10325	DISABILITY INSURAN	856.00	856.00	836.34	19.66
	1150	COLLECTOR		10350	LIFE INSURANCE	329.00	329.00	319.20	9.80
	1150	COLLECTOR		10375	DENTAL INSURANCE	3,318.00	3,318.00	3,318.00	.00
	1150	COLLECTOR		10400	WORKERS COMP	755.00	755.00	682.97	72.03
	1150	COLLECTOR		10500	401(A) MATCH PLAN	2,457.00	2,457.00	1,990.00	467.00
	1150	COLLECTOR		10600	UNEMPLOYMENT BENEF		.00	.00	.00
					TOTAL	394,744.00	394,744.00	381,985.02	12,758.98
2013	1150	COLLECTOR	20000	22500	SUBSCRIPTIONS/PUBL	150.00	150.00	100.00	50.00
	1150	COLLECTOR		23000	OFFICE SUPPLIES	3,000.00	3,000.00	2,991.14	8.86
	1150	COLLECTOR		23001	PRINTING	10,330.00	10,330.00	9,771.90	558.10
	1150	COLLECTOR		23017	COMPUTER PAPER	3,200.00	3,200.00	2,166.82	1,033.18
	1150	COLLECTOR		23850	MINOR EQUIP & TOOL	1,000.00	1,000.00	1,769.29	769.29-
					TOTAL	17,680.00	17,680.00	16,799.15	880.85
2013	1150	COLLECTOR	30000	37000	DUES & PROF CERTIF	25.00	25.00	50.00	25.00-
	1150	COLLECTOR		37200	SEMINARS/CONFERENCE	855.00	855.00	770.00	85.00
	1150	COLLECTOR		37220	TRAVEL (AIRFARE, M	550.00	550.00	300.58	249.42
	1150	COLLECTOR		37230	MEALS & LODGING-TR	625.00	625.00	182.74	442.26
					TOTAL	2,055.00	2,055.00	1,303.32	751.68
2013	1150	COLLECTOR	40000	48000	TELEPHONES	3,600.00	3,600.00	3,507.73	92.27
					TOTAL	3,600.00	3,600.00	3,507.73	92.27
2013	1150	COLLECTOR	60000	60050	EQUIP SERVICE CONT	1,003.00	1,003.00	606.54	396.46
	1150	COLLECTOR		60200	EQUIP REPAIRS/MAIN	500.00	500.00	828.74	328.74-
					TOTAL	1,503.00	1,503.00	1,435.28	67.72
2013	1150	COLLECTOR	70000	71000	INSURANCE AND BOND	100.00	100.00	100.00	.00
	1150	COLLECTOR		71100	OUTSIDE SERVICES	2,905.00	2,905.00	3,503.60	598.60-
	1150	COLLECTOR		71107	BANK/CREDIT CARD S	7,870.00	7,870.00	8,265.20	395.20-
	1150	COLLECTOR		71116	SERVICES/SURVEYOR	4,000.00	4,000.00	1,642.50	2,357.50
	1150	COLLECTOR		71500	BUILDING USE/RENT	29,090.00	29,090.00	29,090.00	.00
					TOTAL	43,965.00	43,965.00	42,601.30	1,363.70
2013	1150	COLLECTOR	80000	84400	PUBLIC NOTICES	9,048.00	9,048.00	6,866.91	2,181.09
	1150	COLLECTOR		84500	TITLE SEARCH	34,025.00	34,025.00	17,715.52	16,309.48
	1150	COLLECTOR		86898	OVER AND SHORT	5.00	5.00	.00	5.00
					TOTAL	43,078.00	43,078.00	24,582.43	18,495.57

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PAGE 2

LEDGER YEAR	DEPT	Department Name	ACCOUNT CLASS	ACCOUNT NAME	TOTAL	ORIGINAL BUDGET	CURRENT BUDGET	ACTUAL REV/EXP	REMAINING BALANCE
						506,625.00	506,625.00	472,214.23	34,410.77

*** END OF REPORT ***

Fund Statement - Tax Maintenance Fund 211 (Nonmajor)

	2014 Actual	2015 Budget	2015 Estimated	2016 Budget
FINANCIAL SOURCES:				
Revenues				
Property Taxes	\$ -	-	-	-
Assessments	-	-	-	-
Sales Taxes	-	-	-	-
Franchise Taxes	-	-	-	-
Licenses and Permits	-	-	-	-
Intergovernmental	-	-	-	-
Charges for Services	196,282	190,683	-	-
Fines and Forfeitures	-	-	-	-
Interest	1,384	1,417	-	-
Hospital Lease	-	-	-	-
Other	-	-	-	-
Total Revenues	197,666	192,100	-	-
Other Financing Sources				
Transfer In from other funds	-	-	-	-
Proceeds of Long-Term Debt	-	-	-	-
Other (Sale of Capital Assets, Insurance Proceeds, etc)	-	-	-	-
Total Other Financing Sources	-	-	-	-
Fund Balance Used for Operations	10,137	71,358	-	-
TOTAL FINANCIAL SOURCES	\$ 207,803	263,458	-	-
 FINANCIAL USES:				
Expenditures				
Personal Services	\$ 23,431	44,649	-	-
Materials & Supplies	132	900	-	-
Dues Travel & Training	5,991	11,050	-	-
Utilities	-	-	-	-
Vehicle Expense	-	-	-	-
Equip & Bldg Maintenance	-	-	-	-
Contractual Services	131,823	154,750	-	-
Debt Service (Principal and Interest)	-	-	-	-
Emergency	-	-	-	-
Other	-	27,468	-	-
Fixed Asset Additions	7,915	-	-	-
Total Expenditures	169,292	238,817	-	-
Other Financing Uses				
Transfer Out to other funds	38,511	24,641	-	-
Early Retirement of Long-Term Debt	-	-	-	-
Total Other Financing Uses	38,511	24,641	-	-
TOTAL FINANCIAL USES	\$ 207,803	263,458	-	-
 FUND BALANCE:				
FUND BALANCE (GAAP), beginning of year	\$ 288,091	277,954	277,954	277,954
Less encumbrances, beginning of year	-	-	-	-
Add encumbrances, end of year	-	-	-	-
Fund Balance Increase (Decrease) resulting from operations	(10,137)	(71,358)	-	-
FUND BALANCE (GAAP), end of year	277,954	206,596	277,954	277,954
Less: FUND BALANCE UNAVAILABLE FOR APPROPRIATION, end of year	-	-	-	-
NET FUND BALANCE, end of year	\$ 277,954	206,596	277,954	277,954
Net Fund Balance as a percent of expenditures	164.19%	86.51%	#DIV/0!	#DIV/0!

CERTIFIED COPY OF ORDER

April Session of the April Adjourned

Term. 20 15

STATE OF MISSOURI }
County of Boone } ea.

In the County Commission of said county, on the 28th day of April 20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby approve the attached Deputy Sheriff Salary Supplementation Fund application with the Missouri Department of Public Safety.

Done this 28th day of April, 2015.

ATTEST:

Wendy S. Noren
Wendy S. Noren
Clerk of the County Commission

Daniel K. Atwill
Daniel K. Atwill
Presiding Commissioner
Karen M. Miller
Karen M. Miller
District I Commissioner
Janet M. Thompson
Janet M. Thompson
District II Commissioner

Missouri Department of Public Safety

Application

48811 - 2016 DSSSF

51146 - Deputy Sheriff Salary Supplementation Fund

Deputy Sheriff Salary Supplementation Fund (DSSSF)

Status: Editing

Submitted Date:

Primary Contact

Name:*	Ms.	Leasa	Quick
	<small>Title</small>	<small>First Name</small>	<small>Last Name</small>
Job Title:	Budget Administrator		
Email:	LQuick@boonecountymo.org		
Mailing Address:	Boone County Sheriff's Department		
Street Address 1:	2121 County Drive		
Street Address 2:			
*	Columbia	Missouri	65202
	<small>City</small>	<small>State/Province</small>	<small>Postal Code/Zip</small>
Phone:*	573-876-2149		Ext.
Fax:	573-874-8953		

Organization Information

Applicant Agency:	Boone County, Sheriff's Office
Organization Type:	Government
Federal Tax ID#:	436000349
DUNS #:	182739177

CCR Code:

Valid Until Date

Organization Website:

<http://www.boonecountymo.org/sheriff/>

Mailing Address:

2121 E. County Dr.

Street Address 1:

Street Address 2:

City*

Columbia

Missouri

65202

9064

City

State/Province

Postal Code/Zip

+ 4

County:

Boone

Congressional District:

04

Phone:*

573-875-1111

Ext.

Fax:

573-874-8953

Application Type

Application Type:

Continuation

Contact Information

Authorized Official

The Authorized Official is the individual who has the ability to legally bind the applicant agency in a contract. The Authorized Official, therefore, shall be the County Commissioner or County Executive, except in the case of St. Louis City, which should be the Mayor.

Name:*

Commissioner

Daniel

Atwill

Title

First Name

Last Name

Job Title:

Presiding Commissioner

Agency:

County of Boone

Mailing Address:

801 East Walnut, Rm. 333

Enter a PO Box where applicable. If a PO Box is not applicable, enter the physical street address.

Street Address 1:

If a PO Box is entered on the Mailing Address line, enter the physical street address here.

Street Address 2:

City/State/Zip:*

Columbia

Missouri

65201

City

State

Zip

Email:

datwill@boonecountymo.org

Phone:*

573-886-4305

Ext.

Fax: 573-886-4311

Project Director

The Project Director is the individual who will have direct oversight of the proposed project. The Project Director, therefore, shall be the Sheriff.

Name:* Sheriff Dwayne Carey
Title First Name Last Name

Job Title: Sheriff

Agency: Boone County Sheriff's Department

Mailing Address: 2121 County Drive

Enter a PO Box where applicable. If a PO Box is not applicable, enter the physical street address.

Street Address 1:

If a PO Box is entered on the Mailing Address line, enter the physical street address here.

Street Address 2:

City/State/Zip:* Columbia Missouri 65202
City State Zip

Email: dcarey@boonecountymmo.org

Phone:* 573-876-6101
Ext.

Fax: 873-874-8953

Fiscal Officer

The Fiscal Officer is the individual who has responsibility for accounting and audit issues at the applicant agency level. The Fiscal Officer, therefore, shall be the County Treasurer, Director of Finance, or person of similar duty.

Name:* Ms. Nicole Galloway
Title First Name Last Name

Job Title: Treasurer

Agency: Boone County Treasurer's Office

Mailing Address: 801 E. Walnut, Rm. 205

Enter a PO Box where applicable. If a PO Box is not applicable, enter the physical street address.

Street Address 1:

If a PO Box is entered on the Mailing Address line, enter the physical street address here.

Street Address 2:

City/State/Zip:* Columbia Missouri 65201
City State Zip

Email: ngalloway@boonecountymmo.org

Phone:* 573-886-4365
Ext.

Fax 573-886-4369

Claims Point of Contact

The Claims Point of Contact is the individual who will be the primary contact for day-to-day questions regarding the Claim reports.

Name:* Ms. Leasa Quick
Title First Name Last Name

Job Title: Budget Administrator

Agency: Boone County Sheriff's Department

Mailing Address: 2121 County Drive

Enter a PO Box where applicable. If a PO Box is not applicable, enter the physical street address.

Street Address 1:

If a PO Box is entered on the Mailing Address line, enter the physical street address here.

Street Address 2:

City/State/Zip:* Columbia Missouri 65202
City State Zip

Email: lquick@boonecountymo.org

Phone:* 573-876-2149
Ext.

Fax: 573-874-8953

Personnel

Name	Job Title	Employment Status	Licensed	Hire Date	Annual Salary	Supplemental Salary per Pay Period	Number of Pay Periods	Total Cost
Antimi, Domenica	Deputy Sheriff	FT	Yes	12/27/2005	\$45,552.00	\$92.31	13.0	\$1,200.03
Bounds, Cody	Investigator	FT	Yes	02/01/2011	\$48,755.20	\$92.31	13.0	\$1,200.03
Boyce, Kenneth	Sergeant	FT	Yes	09/09/1999	\$52,457.60	\$92.31	13.0	\$1,200.03
Boyd, Micah	Deputy Sheriff	FT	Yes	04/25/2005	\$44,595.20	\$92.31	13.0	\$1,200.03
Burkholder, Eli	Deputy Sheriff	FT	Yes	03/17/2006	\$44,033.60	\$92.31	13.0	\$1,200.03
Chinn, James	Investigator	FT	Yes	07/08/2003	\$52,041.60	\$92.31	13.0	\$1,200.03
Cleeton, Tracey	Deputy Sheriff	FT	Yes	11/08/2004	\$44,948.80	\$92.31	13.0	\$1,200.03
Collins, Andrew	Deputy Sheriff	FT	Yes	12/27/2005	\$45,489.60	\$92.31	13.0	\$1,200.03

Coonrod, Steven	Deputy Sheriff	FT	Yes	10/16/2008	\$44,033.60	\$92.31	13.0	\$1,200.03
Dietzel, Larry	Deputy Sheriff	FT	Yes	07/13/1987	\$49,088.00	\$92.31	13.0	\$1,200.03
Dodson, Derrick	Deputy Sheriff	FT	Yes	04/08/2002	\$46,134.40	\$92.31	13.0	\$1,200.03
Dotson, Jared	Deputy Sheriff	FT	Yes	09/25/2012	\$43,534.40	\$92.31	13.0	\$1,200.03
Dunlap, Jason	Deputy Sheriff	FT	Yes	11/26/2012	\$43,534.40	\$92.31	13.0	\$1,200.03
Eaton, Eran	Deputy Sheriff	FT	Yes	04/01/2015	\$41,454.40	\$92.31	13.0	\$1,200.03
Evans, Andrew	Investigator	FT	Yes	11/01/2004	\$48,755.20	\$92.31	13.0	\$1,200.03
Fowler, Trevor	Deputy Sheriff	FT	Yes	05/17/1995	\$47,340.80	\$92.31	13.0	\$1,200.03
Gaddis, James	Deputy Sheriff	FT	Yes	04/01/2014	\$41,454.40	\$92.31	13.0	\$1,200.03
Guinnip, Matthew	Deputy Sheriff	FT	Yes	04/01/2015	\$41,454.40	\$92.31	13.0	\$1,200.03
James, Billy	Deputy Sheriff	FT	Yes	01/31/2005	\$45,988.80	\$92.31	13.0	\$1,200.03
Jameson, Jason	Sergeant	FT	Yes	07/02/2003	\$53,560.00	\$92.31	13.0	\$1,200.03
Jameson, Jessica	Investigator	FT	Yes	01/10/2001	\$50,460.80	\$92.31	13.0	\$1,200.03
Leer, Brian	Sergeant	FT	Yes	10/28/2003	\$54,600.00	\$92.31	13.0	\$1,200.03
Lehman, Josh	Deputy Sheriff	FT	Yes	01/13/2015	\$41,454.40	\$92.31	13.0	\$1,200.03
Leiva, Alexandria	Deputy Sheriff	FT	Yes	11/17/2013	\$42,494.40	\$92.31	13.0	\$1,200.03
Lester, Christopher	Investigator	FT	Yes	03/10/2003	\$52,000.00	\$92.31	13.0	\$1,200.03
Luntsford, Clark	Investigator	FT	Yes	06/06/1997	\$53,164.80	\$92.31	13.0	\$1,200.03
Marshall-Isom, Trenton	Deputy Sheriff	FT	Yes	12/31/2013	\$41,454.40	\$92.31	13.0	\$1,200.03
Martin, Laurel	Deputy Sheriff	FT	Yes	06/12/2014	\$41,454.40	\$92.31	13.0	\$1,200.03

McGruder, Shawn	Deputy Sheriff	FT	Yes	12/20/1999	\$46,592.00	\$92.31	13.0	\$1,200.03
Moore, Caleb	Deputy Sheriff	FT	Yes	08/25/2013	\$42,494.40	\$92.31	13.0	\$1,200.03
O'Sullivan, Thomas	Investigator	FT	Yes	09/19/1988	\$55,452.80	\$92.31	13.0	\$1,200.03
Painter, Micheal	Deputy Sheriff	FT	Yes	05/02/2005	\$44,096.00	\$92.31	13.0	\$1,200.03
Perkins, Anthony	Investigator	FT	Yes	07/12/1999	\$49,462.40	\$92.31	13.0	\$1,200.03
Perkins, James	Sergeant	FT	Yes	05/17/2000	\$54,475.20	\$92.31	13.0	\$1,200.03
Perkins, Micheal	Sergeant	FT	Yes	08/08/1996	\$56,097.60	\$92.31	13.0	\$1,200.03
Perkins, Tracy	Investigator	FT	Yes	08/18/1993	\$52,852.80	\$92.31	13.0	\$1,200.03
Rausch, Jared	Deputy Sheriff	FT	Yes	07/07/2014	\$41,454.40	\$92.31	13.0	\$1,200.03
Richardson, Patrick	Deputy Sheriff	FT	Yes	07/28/2013	\$42,494.40	\$92.31	13.0	\$1,200.03
Robbins, Lance	Sergeant	FT	Yes	05/05/1997	\$57,345.60	\$92.31	13.0	\$1,200.03
Robison, Dale	Deputy Sheriff - Civil Process	FT	Yes	08/18/1975	\$51,625.60	\$92.31	13.0	\$1,200.03
Robison, RoxAnne	Deputy Sheriff - Civil Process	FT	Yes	10/16/2004	\$46,259.20	\$92.31	13.0	\$1,200.03
Rodgers, Zakquery	Deputy Sheriff	FT	Yes	08/23/2004	\$45,032.00	\$92.31	13.0	\$1,200.03
Shea, Ernest	Sergeant	FT	Yes	01/04/1999	\$55,889.60	\$92.31	13.0	\$1,200.03
Skinner, Ryan	Deputy Sheriff	FT	Yes	04/24/2013	\$42,494.40	\$92.31	13.0	\$1,200.03
Skinner, Scott	Deputy Sheriff	FT	Yes	12/23/2002	\$47,403.20	\$92.31	13.0	\$1,200.03
Smith, Christopher	Deputy Sheriff	FT	Yes	11/04/1997	\$48,984.00	\$92.31	13.0	\$1,200.03
Smith, Philip	Sergeant	FT	Yes	10/24/2005	\$52,790.40	\$92.31	13.0	\$1,200.03

Stewart, Jay	Deputy Sheriff	FT	Yes	06/08/2014	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #134	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #438	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #558	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #641	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #692	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH #897	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
TBH SRO	Deputy Sheriff	FT	Yes	N/A	\$41,454.40	\$92.31	13.0	\$1,200.03
Turner- Robison, Nina	Sergeant	FT	Yes	07/17/2003	\$55,952.00	\$92.31	13.0	\$1,200.03
Vessar, Matthew	Investigator	FT	Yes	04/17/2013	\$43,721.60	\$92.31	13.0	\$1,200.03
Weber, Brandon	Investigator	FT	Yes	07/02/2003	\$48,755.20	\$92.31	13.0	\$1,200.03
Wilson, David	Investigator	FT	Yes	04/28/1997	\$55,182.40	\$92.31	13.0	\$1,200.03
								\$70,801.77

Personnel Benefits

Category	Item	Supplemental Salary	Rate	Total Cost
FICA/Medicare	FICA/Medicare	\$70,801.77	0.0765	\$5,416.34
				\$5,416.34
Other	Long Term Disability	\$70,801.77	0.0038	\$269.05
				\$269.05
Pension	CERF (Derrick Dodson, Scott Skinner)	\$2,400.06	0.04	\$96.00
				\$96.00
Workers Comp	Workers Compensation	\$70,801.77	0.033	\$2,336.46
				\$2,336.46
				\$8,117.85

Total Budget

Total Project Cost: \$78,919.62

Audit Requirements

Date last audit was completed: 06/27/2014
Date(s) covered by last audit: 01/01/2013 to 12/31/2013
Last audit performed by: Rubin Brown LLP
Phone number of auditor: 314-290-3300
Date of next audit: 05/2015
Date(s) to be covered by next audit: 01/01/2014 to 12/31/2014
Next audit will be performed by: Rubin Brown LLP

Total amount of financial assistance received from all entities, including the Missouri Department of Public Safety, during the date(s) covered by your agency's last audit, as indicated above.

*The **Federal Amount** refers to funds received directly from the Federal Government or federal funds passed through state agencies in the form of grants, loans, loan guarantees, property (including donated surplus property), cooperative agreements, interest subsidies, insurance, food commodities, direct appropriations, and other assistance.*

*The **State Amount** refers to funds received directly from the State of Missouri, not including federal pass-thru funds.*

Federal Amount: \$922,982.00

State Amount:

\$2,377,808.00

Certified Assurances

To the best of my knowledge and belief, all data in this application is true and correct, the document has been duly authorized by the governing body of the applicant, and the applicant attests to and/or will comply with the following Certified Assurances if the assistance is awarded:

2016 DSSSF Certified Assurances

I am aware that failure to comply with any of the Certified Assurances could result in funds being withheld until such time that I, the recipient, take appropriate action to rectify the incident(s) of non-compliance. Where the Authorized Official is unable to certify to any of the statements in the Certified Assurances, he or she shall provide an explanation below and may attach documentation under the 'Other Attachments' form where needed.

I have read and agree to the terms and conditions of the grant.

If you marked No to the question above, please explain:

Your typed name as the Applicant Authorized Official (e.g. County Commissioner, County Executive, or Mayor in the case of St. Louis City Sheriff's Office), in lieu of signature, represents your legal binding acceptance of the terms of this application and your statement of the veracity of the representations made in this application.

Authorized Official Name:

Job Title: PRESIDING COMMISSIONER

Date: 4-28-15

CERTIFIED COPY OF ORDER

STATE OF MISSOURI }
County of Boone } ea.

April Session of the April Adjourned

Term. 2015

In the County Commission of said county, on the 28th day of April 20 15

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby approve the disposition of surplus, per attached summary order description, to Estil L. West Jr. in the amount of \$10,632.66 via check payable to Estil L. West Jr., and mailed to said at 4150 Bethel St., Columbia, MO 65203 per the address on the application.

Done this 28th day of April, 2015.

ATTEST:

Wendy S. Noren
Wendy S. Noren
Clerk of the County Commission

Daniel K. Atwill
Daniel K. Atwill
Presiding Commissioner

Karen M. Miller
Karen M. Miller
District I Commissioner

Janet M. Thompson
Janet M. Thompson
District II Commissioner

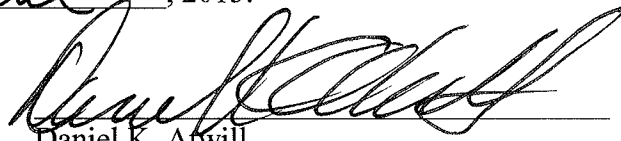
Now on this day the County Commission of the County of Boone does hereby take up the matter of the disposition of the 2013 tax sale surplus relating to parcel 17-107-00-01-021.00

Pursuant to the provisions of RSMo §140.230, as revised, the Commission has the authority to approve claims for any tax sale surplus that is being held by the County Treasurer associated with the County Collector's annual tax sale. The owner or owners of the subject real property have a period of three (3) years to make a claim for said surplus. In this instance, the owner of record at the time the subject property went to tax sale was **Estil L. West Jr.** **Estil L. West Jr.** has filed a verified surplus claim with the Boone County Treasurer claiming the tax surplus proceeds. The verified surplus claim, a copy of the Deed recorded at Book 411, Page 795, Boone County Records, and other supporting documentation filed by **Estil L. West Jr.** are made a part of this record. The application to the County Treasurer for the surplus funds is timely.

The County Treasurer, based upon the documents presented to her office and made a part of the record before the Commission, is satisfied that **Estil L. West Jr.** was the record owner of the subject property at the time of the delinquent land tax auction and as such is entitled to the total surplus of \$10,632.66, and recommends the Commission approve the same.

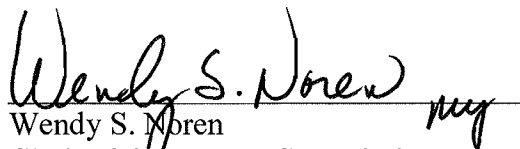
NOW, THEREFORE, upon the recommendation of the County Treasurer and the evidence made a part of this record, the County Commission hereby approves the disposition of surplus to **Estil L. West Jr.** in the amount of \$10,632.66 via check payable to **Estil L. West Jr.** in that amount.

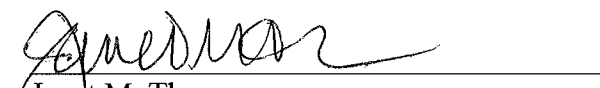
Done this 28th day of April, 2015.


Daniel K. Atwill
Presiding Commissioner


Karen M. Miller
District I Commissioner

ATTEST:


Wendy S. Noren
Clerk of the County Commission


Janet M. Thompson
District II Commissioner



NICOLE GALLOWAY, CPA
BOONE COUNTY TREASURER

Handwritten initials

SURPLUS CLAIM

NOTE: FORM MUST BE SIGNED BY ALL PARTIES AND NOTARIZED

I, Estil L. West Jr, shown in the Boone County Collector's tax records as owner of the property listed below, hereby claim the surplus amount of \$10,632.66 resulting from the tax certificate sale conducted by the Boone County Collector on August 26, 2013. I affirm that I am/was the legal owner of the below described property at the time the property was sold at the tax delinquency sale and further affirm I am entitled to the surplus amount. By signing below, I acknowledge the following:

- Claiming surplus does not waive legal right of property redemption within statutory limits
The Boone County Treasurer processes surplus claims without charge
Claimants may be called to testify directly to the Boone County Commission before surplus claim is approved
The claim may not be approved as submitted, and additional information might be requested

Property: Parcel: 17-107-00-01-021.00 Sec 05 T48 R12
Parcel address: 2508 South Dr. Columbia, Mo 65203
Legal Description: L21 Oakland Park SD as shown in Plat Book/Page 5/21

Current mailing address:

4150 Bethel St.
Street

Columbia Mo 65203
City State Zip

Social Security Number 490 44 2499

Driver's License/State ID Number TC 80415372

Daytime Telephone Number(s) 44 20059 673 0010CELL

Estil West

4-9-13

Signature Date

State of Mo
County of Boone

On this 9 day of APRIL in the year 2013, before me, the undersigned notary public, personally appeared ESTIL WEST JR, known to me to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the named for the purposes therein contained. In witness whereof, I hereunto set my hand and official seal.

Handwritten signature of Notary Public

Notary Public

Return form to Boone County Treasurer's Office, 801 E. Walnut Rm. 205, Columbia, MO 65201.

YOU MUST INCLUDE A PHOTO COPY OF DRIVER'S LICENSE(S) OR STATE ID(S).

Once paperwork is received and verified a check will be issued and mailed to address above.

BOONE COUNTY GOVERNMENT CENTER
801 EAST WALNUT STREET, ROOM 205
COLUMBIA, MISSOURI 65201
(573) 886-4365
FAX (573) 886-4369
TREASURER@BOONECOUNTYMO.ORG
WWW.SHOWMEBOONE.COM/TREASURER

JULIE M. CROUCH
Notary Public - Notary Seal
State of Missouri
County of Boone
My Commission Expires September 16, 2017
Commission #13868963