

**MARCS REMOTE COMMUNICATIONS TOWER
REQUEST FOR QUOTE
FOR DEPARTMENT OF ADMINISTRATIVE SERVICES
MULTI-AGENCY RADIO COMMUNICATION SYSTEM
REMOTE COMMUNICATIONS TOWER
FORT RECOVERY, MERCER COUNTY, OHIO 45846**

The State of Ohio, Department of Administrative Services, Office of Information Technology, Multi-Agency Radio Communication System Program (“MARCS”) is requesting quotes (“RFQ”) for, construction and post construction activities for a remote communications tower site (“the Project”) to be located at 111 Main Street, Fort Recovery, Ohio, 45846 (the “Site”).

Background

This Project will consist of erecting a turnkey, remote communications tower including materials, equipment, labor and all foundation, grounding and utility work. The State will provide a Geotechnical Report and Site Plans containing Specifications and a Site Survey to vendors submitting a quote (“Quote”).

The selected Vendor will have 60 consecutive days to complete the project from receipt of the purchase order and notice to proceed.

This Project is funded by federal grant money. Total costs for this Project cannot exceed One Hundred Twenty Three Thousand and No Cents (\$123,000.00).

Evaluation and Award

The Vendor must have experience in project management for at least five (5) public safety communication tower construction projects, and must provide references for these projects.

The Vendor must submit a Project Schedule, inclusive of payable deliverables set forth in this RFQ. The Vendor must also include the name of the Project Manager assigned to this Project.

The Vendor must provide a not to exceed fixed price quote for this Project as set forth in this RFQ.

The State will award the Contract to the selected Vendor based upon the Vendor’s qualifications and experience, response of References of Vendor’s conduct and performance on previous contracts, the submitted Project Schedule, Vendor’s ability to execute the contract properly, and the Vendor’s not to exceed fixed price submitted.

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Final acceptance of the selected Vendor's Quote is subject to the Controlling Board and the MARCS Steering Committee approval. The selected Vendor cannot begin work until a purchase order and notice to proceed are issued.

The selected Vendor must sign and return the attached Contract Terms and Conditions within five, (5), days after notification that the Vendor has been selected to do the work.

Schedule of Events

The Project will advertise from February 15th until February 23rd 2011
Questions will be accepted until February 18th 2011 at 8:00am.
Bid opening will be February 23rd, 2011 at 1:00pm.
Estimated Notice of Acceptance will be on February 24th, 2011
Project must be completed by June 1st, 2011.

Quotes will be accepted no later than 1:00pm on Wednesday, February 23rd, 2011, by the Department of Administrative Services, Office of Information Technology, Business Office at 30 E. Broad Street, 39th Floor, Columbus, Ohio 43215. When submitting a quote, the vendor must clearly mark the envelope with the Project name, due date, and to the attention of Ted Hampton, Procurement Manager. Vendors must submit three hard copies and one electronic copy on CD-ROM or Flash Drive in Microsoft Office, Microsoft Project, and Adobe Acrobat format, as appropriate. If there is a discrepancy between the hard copy and the electronic copy of the Quote, the hard copy will control, and the State will base its evaluation of the Vendor's Quote on the hard copy.

Inquiries

Vendors may make inquiries regarding this RFQ any time during the inquiry period listed on the RFQ cover sheet. The State may not respond to any improperly formatted inquiries. The State will try to respond to all inquiries within 24 hours, excluding weekends and State holidays. The State will not respond to any inquiries received after 8:00 am. on the inquiry period end date. The State may extend the proposal due date.

To make an inquiry, vendors must use the process outlined below.

Access the State Procurement Web site at <http://procure.ohio.gov/>.

From the Navigation Bar on the left, select "Find It Fast".

Select "Doc/Bid/Schedule #" as the Type.

Enter the RFQ number found on the first page of this RFQ (the RFQ number begins with "DAS").

Click the "Find It Fast" button.

On the document information page, click the "Submit Inquiry" button.

On the document inquiry page, complete the required "Personal Information" section by providing:

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First and last name of the prospective vendor's representative who is responsible for the inquiry;
Name of the prospective vendor;
Representative's business phone number, and
Representative's e-mail address.
Type the inquiry in the space provided, including:
A reference to the relevant part of this RFQ;
The heading for the provision under question, and
The page number of the RFQ where the provision can be found.
Click the "Submit" button.

A vendor submitting an inquiry will receive an immediate acknowledgement that the State has received the inquiry as well as an e-mail acknowledging receipt. The vendor will not receive a personalized response to the question nor notification when the State has answered the question.

Vendors may view inquiries and responses on the State's Procurement Web site by using the "Find It Fast" feature described above and by clicking the "View Q & A" button on the document information page.

All questions must be submitted by **8:00 am on Friday, February 18, 2011**. Questions submitted after this time will not receive a response from the state.

Miscellaneous

The State may reject any Quote if the Vendor fails to meet a deadline in the submission or objects to the dates for performance of the Work or the terms and conditions in this RFQ.

By submitting a Quote, the Vendor acknowledges that it has read this RFQ, understands it, and agrees to be bound by its requirements. The State is not responsible for the accuracy of any information regarding this RFQ that was gathered through a source other than the inquiry process described in the RFQ.

The State may reject any Quote if the Vendor: 1) takes exception to the terms and conditions of this RFQ, including unacceptable assumptions or conditions in its Quote; 2) fails to comply with the procedure for participating in the RFQ process; or 3) fails to meet any requirement of this RFQ. The State may also reject any Quote that it believes is not in its interest to accept and may decide not to award a contract to any or all of the Vendors responding to this RFQ.

All Quotes and other material that Vendors submit will become the property of the State and may be returned only at the State's option. Vendors should not include any confidential information in a Quote or other material submitted as part of the response. All Quotes will be open to the public after the State has awarded the Contract.

The State will retain the Quotes, or a copy of them, as part of the Contract file for at least three years. After the three year retention period, the State may return, destroy, or otherwise dispose of the Quotes and any copies of them.

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Selected Vendor Responsibilities

The selected Vendor must construct a 100' mono-pole communications tower that will be located behind the existing fire station at 111 Main Street Fort Recovery, Ohio, 45846.

The selected Vendor will be responsible for providing line, antenna and miscellaneous provided equipment installation.

The selected Vendor must include a \$2,000.00 allowance to be paid to the design engineer of record to provide as-built drawings. The selected Vendor will be responsible for the red lines that will be used for the creation of the as-built drawings.

The selected Vendor will be responsible for all utility coordination, installation and any fees and permits, if required.

The selected Vendor will be responsible for weekly updates to the MARCS office on the site management, and construction status. MARCS personnel will periodically conduct site inspections, for verification of deliverable progress and completion. Prior to final payment, MARCS will conduct an inspection to ensure all deliverables have been completed.

The selected Vendor must have any and/or all staff working or visiting the Site to have State Highway Patrol background checks (coordinated through MARCS). All rules, regulations and laws are to be complied with inclusive of no weapon/drug zones.

The State seeks a complete Project, and the Vendor must provide any incidental items omitted in the RFQ as part of the Vendor's not-to-exceed fixed price.

Pre-Construction Phase- Deliverable 1

Pre-Construction Meeting

The selected Vendor will be required to attend a pre-construction meeting to be hosted by the design engineer of record and located at the Site. The selected Vendor must take meeting minutes that include the date of the meeting, the attendees, the official start date of the Project, and any other substantive information discussed at the meeting. The selected Vendor must provide the meeting minutes to MARCS within one week after the pre-construction meeting.

Construction Phase- Deliverable 2

Construction of 100' Mono-Pole-Material and Installation, As Per Plans

Construction of Foundation – All Associated Anchoring, Grounding, Etc., As Per Plans

Construction of Ice Bridge – As Per Plans

Antenna Installation Materials – As listed/Per Plans

Miscellaneous Items for Installation Only – As listed/Per Plans

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At the completion of construction, MARCS will conduct a walk-thru with the Project Manager to ensure all work is completed. At this time a “short” or “punch-out” list will be completed of any and all outstanding items. This list is to be documented on site and signed off by both parties.

Vendor will provide a hard copy of this mutually approved list and an updated completion schedule to MARCS two (2) days following this meeting.

All labor activities must be completed in accordance with prevailing wage rates. The selected Vendor is responsible for all required compliance regarding prevailing wages as directed by the Department of Commerce. The prevailing wage rates are available at the Ohio Department of Commerce’s web site: <http://www.com.state.oh.us>.

Post-Construction Phase- Deliverables 3 & 4

Final Site Acceptance- Deliverable 3

This phase will include final acceptance of the MARCS Remote Communications Site. Upon notification of completion of identified outstanding items, MARCS and the Project Manager will perform a final inspection to ensure that all items specified in the final plans for construction have been successfully completed and the State is in receipt of a turnkey remote communications tower site.

Site Completion Documentation- Deliverable 4

The selected Vendor must provide to MARCS two (2) hard copy sets and two (2) CD sets of final Site Completion Documents inclusive of but not limited to; original and as-built plans and drawings, environmental and tower studies conducted and their results, associated warranty documentation, testing reports for equipment, permits and/or legal documents, product documentation, product and service provider contact information, additional vendor warranties and/or documentation associated with this Project.

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Remote Communications Tower
Fort Recovery, Mercer County 45846**

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Project must be **completed by June 1st, 2011.**

Quotes will be **accepted no later than 1:00pm on Wednesday, February 23rd, 2011**, by the Department of Administrative Services, Office of Information Technology, Business Office at 30 E. Broad Street, 39th Floor, Columbus, Ohio 43215. When submitting a Quote, the vendor must clearly mark the envelope with the Project name, due date, and to the attention of Ted Hampton, Procurement Manager.

The selected Vendor must sign and return the Contract Terms and Conditions within five (5) days of award of this RFQ. The State will not sign the Contract until authorization to create a valid purchase order has been given.

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The State will pay this contract on successful completion of the deliverables set forth below.

This is a **not to exceed fixed price quote**.

All labor costs will be at the State Prevailing Wage Rates.

The undersigned proposes to provide all required materials and perform all services for this Project, for the following sum(s):

Description Quote

Pre-Construction Phase

- **Pre-Construction Meeting/Meeting Minutes (Deliverable 1)** _____ **N/A**

Construction Phase

- **Site Development (Deliverable 2)** _____
 - Mono-Pole Erection, as described and/or per plans
 - Foundation, as described and/or per plans
 - Ice Bridge, as described and/or per plans
 - Snap-in Stackable 7/8"
 - Snap-in Stackable 1 1/4"
 - Antennae Installation Materials, as described and/or per plans
 - Coax, 7/8" Andrew foam
 - Coax, 1 1/4" Andrew foam
 - Hoisting Grip 1/2" pre laced with shackle
 - Hoisting Grip 7/8" tie on with shackle
 - Ground, Universal
 - Andrew 1 1/4" LDF 7/16" DIN Female connector
 - Coax, 1/2" Andrew foam
 - Andrew 1/2" LDF 7/16" DIN Male connector
 - Polyphaser DSXL-D-MA
 - Andrew 1/2" LDF 7/16" N Male connector
 - CGXZ + #^NMNF-A Polyphaser
 - Andrew 7/8" LDF N Male connector
 - IMCI 1000XL Open-I firmware version 11.5.0

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• **Misc Materials and items for installation only**

- Bussbar, Tinned 4 x 24 - 36 hole
- Andrew 3/8" LDF coax line
- Hoisting Grip 1 5/8" slip on
- Clamp set DB Crossover Clamp set 3"
- Sinclair Antenna SC476-HF1LDF (5765)

• **Completion of Short-List/Punch-List (Deliverable Payout)**

Total Construction Phase \$ _____

Post-Construction Phase

• **Site Final Acceptance (Deliverable 3)** _____

• **Site Completion Documentation (Deliverable 4)** \$3,000.00

- All Original and As-Built Plans and Drawings
 (\$2,000 paid to Engineer of Record-final hold back amount as stated in document)
- All Studies Conducted
- All Associated Warranty Details
- All Documentation Paid for by State of Ohio
- All Testing for any Equipment
- All Permits and/or Legal Documentation
- All Product and Service Provider Contact Information
- Any Additional Documentation Associated with this Project

Total Not To Exceed Fixed Price: \$ _____

The State will withhold a total of \$3,000.00 (\$2000.00 of which is the allowance to be paid to the engineer of record for the original and as-built plans and drawings) until delivery of Site Completion Documentation – Deliverable 4 of the Post-Construction Phase.

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The Vendor acknowledges that by signing this Request for Quote, the Vendor understands and agrees to abide by its Quote, and all terms of the RFQ, including the Contract Terms and Conditions. Signatures must be ORIGINAL in blue ink and signed by an authorized representative of the Vendor. Failure to provide a valid signature will render this Quote non compliant and the Vendor will not be considered for this Project.

VENDOR SIGNATURE AND INFORMATION

Authorized Signature: _____

Printed Name/Title of Authorized Signator: _____

Company Name: _____

Mailing Address: _____

Telephone: _____ **Facsimile Number:** _____

E-Mail Address: _____ **Where Incorporated:** _____

Federal Tax ID#: _____

Date enrolled in an OBWC-approved DFSP (month/date/year): _____ / _____ / _____

Contact person for Contract processing: _____

Telephone: _____ **Facsimile Number:** _____

President or Chief Executive Officer's Name/Title: _____

Telephone: _____ **Facsimile Number:** _____

E-Mail Address: _____

MBE Certified Vendor _____ **Certification ID#** _____

Edge Certified Vendor _____ **Certification ID#** _____

This Complete Project Request for Quote contains the following documents:

- MARCS Remote Site Tower Construction Request for Quote-
- MARCS Terms and Conditions Contract (inclusive of addendums)
- Site Survey/Legal Description
- Geotechnical services/reports
- Design Plans

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINSTRATIVE SERVICES
MULTI-AGENCY RADIO COMMUNICATION
AND _____
FOR FORT RECOVERY**

THIS CONTRACT ("Contract") entered into by and between the state of Ohio Department of Administrative Services Multi-Agency Radio Communication System ("MARCS" or "the State") and _____ ("the Contractor") sets forth the terms and conditions under which the Contractor agrees to perform work in order to construct a tower site ("the Work") at Fort Recovery ("the Site").

In consideration of the mutual promises and obligations contained in this Contract, the parties agree to the following:

I. CONTRACT TERM PROVISIONS:

- A. APPROPRIATION OF FUNDS.** The state of Ohio's funds are contingent upon the availability of lawful appropriations by the Ohio General Assembly. If the General Assembly fails at any time to continue funding for the payments or any other obligations due by the State under this Contract, the State will be released from its obligations on the date funding expires.

The current General Assembly cannot commit a future General Assembly to an expenditure. Therefore, this Contract will automatically expire at the end of a current biennium. The State may renew this Contract in the next biennium by issuing written notice to the Contractor or by actions of the State of the decision to do so.

- B. CERTIFICATION OF FUNDS/PURCHASE ORDER REQUIREMENTS.** None of the duties or obligations in this Contract is binding on the State, and the Contractor will not begin performance on this Contract, until all of the following conditions are met:

1. Certification of Funds

- a. All statutory provisions under the Ohio Revised Code, including Section §126.07, have been met.
- b. All necessary funds are made available by the appropriate state agencies.
- c. If the State is relying on Federal or third-party funds for this Contract, the State certifies, by written notice, that such funds are available.

2. Purchase Order

The Contractor holds an official state of Ohio Purchase Order (P.O.) from the appropriate state agency.

3. Controlling Board

If required, the Controlling Board of Ohio approves this Contract.

4. Notice to Proceed

Subparagraphs 1 through 3 above constitute Contractor's Notice to Proceed.

C. TERMINATION / SUSPENSION.

- 1. **Termination for Convenience.** The State may terminate this Contract for its convenience after issuing written notice to the Contractor. If the termination is for the convenience of the State, the Contractor will be entitled to compensation for any Work that the Contractor has performed before the termination. Such compensation will be the Contractor's exclusive remedy in the case of termination for convenience and is available to the Contractor only after the Contractor has submitted a proper invoice for such, with the invoice reflecting the amount determined by the State to be owing to the Contractor.
- 2. **Contract Termination.** If the Contractor fails to perform any one of its obligations under this Contract, Contractor will be in default and the State may terminate this Contract in accordance with this section. The termination will be effective on the date delineated by the State.

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- a. **Termination for Default.** If the Contractor's default is unable to be cured in a reasonable time, the State may terminate the Contract by written notice to the Contractor.
- b. **Termination for Defaults not Remedied.** If Contractor's default may be cured within a reasonable time, the State will provide written notice to Contractor specifying the default and the time within which Contractor must correct the default. If Contractor fails to cure the specified default within the time required, the State may terminate the Contract. If DAS does not give timely notice of default to the Contractor, the State has not waived any of the State's rights or remedies concerning the default.
- c. **Termination for Endangered Performance.** The State may terminate this Contract by written notice to the Contractor if the State determines that the performance of the Contract is endangered through no fault of the state of Ohio.
- d. **Termination for Financial Instability.** The State may terminate this Contract by written notice to the Contractor if a petition in bankruptcy or similar proceeding has been filed by or against the Contractor.
- e. **Termination for Delinquency, Violation of Law.** The State may terminate this Contract by written notice if the State determines that the Contractor is delinquent in its payment of federal, state or local taxes, workers' compensation, insurance premiums, unemployment compensation contributions, child support, court costs or any other obligation owed to a state agency or political subdivision. The State also may cancel this Contract if the State determines that the Contractor has violated any law during the performance of the Contract. However, the State may not terminate this Contract if the Contractor has entered into a repayment agreement with which the Contractor is current.
- f. **Termination for Subcontractor Default.** The State may terminate this Contract for the default of the Contractor or any of its subcontractors. The Contractor will be solely responsible for satisfying any claims of its subcontractors for any suspension or termination and will indemnify the State for any liability to them. Subcontractors will hold the State harmless for any damage caused to them from a suspension or termination. The subcontractors will look solely to the Contractor for any compensation to which they may be entitled.
- g. **Termination, Effectiveness, Contractor Responsibilities.** The notice of termination whether for cause or without cause will be effective as soon as the Contractor receives the notice. Upon receipt of the notice of termination, the Contractor must immediately cease all Work, if applicable, and take all steps necessary to minimize the costs the Contractor will incur related to this Contract.

3. Contract Suspension.

- a. If the Contractor fails to perform any one of the Contractor's obligations under this Contract, the Contractor will be in default and the State may suspend rather than terminate this Contract where the State believes that doing so would better serve the State's interest.
- b. In the case of a suspension for the State's convenience, the amount of compensation due to the Contractor for work performed before the suspension will be determined in the same manner as provided in this section for termination for the State's convenience or the Contractor may be entitled to compensation for work performed before the suspension
- c. The notice of suspension whether, with or without cause, will be effective immediately, on the Contractor's receipt of the notice. The Contractor must immediately prepare a report and deliver such report to the State as is required in the case of termination.

The Contractor is liable to the state of Ohio for all actual and direct damages caused by the Contractor's default. If actual and direct damages are uncertain or difficult to determine, the State may recover liquidated damages in the amount of 1% of the value of the Contract for every day that the default is not cured by the Contractor. The State may deduct all or any part of the damages

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resulting from the Contractor's default from any part of the Contractor compensation still due on the Contract.

II. PAYMENT PROVISIONS:

A. INVOICE REQUIREMENTS. The Contractor (or authorized dealer for those State Term Schedules where the Contractor has authorized its dealer(s) to submit invoices) must submit an original invoice to the office designated in the purchase order as the "bill to" address. To be a proper invoice, the invoice must include the following information:

1. The purchase order number authorizing the delivery of products or services.
2. Site Name
3. Agency Name
4. Agency Billing Address
5. Site Location
6. Vendor Name
7. Vendor Address
8. Vendor's Unique Invoice Number
9. Date that services were provided or that items were delivered
10. Goods or services provided, including cost
11. Clear statement of total payment expected.
12. For leases, the Contractor or Authorized Dealer must also include the payment number (e.g., 1 of 36) on the invoice.

B. PAYMENT DUE DATE. Payments under this Contract will be due on the 30th calendar day after the date of actual receipt of a proper invoice in the office designated to receive the invoice. The date payment is issued in will be considered the date payment is made.

The Contractor must receive payment from approved vouchers by electronic fund transfer (EFT). The Contractor will provide the necessary information to effectuate this process.

III. CONTRACTOR WARRANTY AND LIABILITY PROVISIONS:

A. CONTRACTOR'S WARRANTY AGAINST AN UNRESOLVED FINDING FOR RECOVERY. The Contractor warrants that the Contractor is not subject to an unresolved finding for recovery under ORC §9.24. If the warranty is false on the date the parties signed this Contract, the Contract is void *ab initio*.

B. GENERAL REPRESENTATIONS AND WARRANTIES.

1. The Contractor shall require each subcontractor and material supplier to fully warrant and guarantee, for the benefit of the State, the effectiveness, fitness for the purpose intended, quality, and merchantability of any Work performed or item provided or installed by the subcontractor or material supplier.
2. The Contractor warrants to the State that all materials and equipment furnished under the Contract shall be new and of good quality unless otherwise required or permitted by the Contract Documents, that the Work shall be free from defects not inherent in the quality required or permitted, and that the Work shall conform to the requirements of the Contract Documents. Work not conforming to those requirements, including substitutions not properly approved and authorized, may be considered defective Work. If required by the State, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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3. Contractor warrants and guarantees to the State that all Work will be in accordance with the Contract Documents and will not be defective. If within one year after the date of completion of the Work, any Work is found to be defective, or if the repair of any damages to the land or areas made available for the Contractor's use is found to be defective, Contractor shall promptly, at its cost, repair such defective land, areas, or defective Work.
 4. The Contractor's warranty and guarantee hereunder excludes defects or damage caused by abuse, modification, or improper maintenance or operation by persons other than the contractor, subcontractors, or any other individual or entity for whom the contractor is responsible; or normal wear and tear under normal usage.
- C. **INDEMNITY.** The Contractor must indemnify the State for any and all claims, damages, lawsuits, costs, judgments, expenses, and any other liabilities resulting from bodily injury to any person (including injury resulting in death) or damage to property that may arise out of or are related to Contractor's performance under this Contract, providing such bodily injury or property damage is due to the negligence of the Contractor, the Contractor's employees, agents, or subcontractors.

IV. GENERAL PROVISIONS:

- A. **ACCEPTANCE OF THE WORK.** The Contractor agrees to allow the State access to the tower construction site and the Work for observation, inspecting, and testing. Upon Contractor's completion of the Work, the Contractor will notify the State that the Work has been completed and is ready for a final inspection. The State will inspect the tower to determine if there are any items that need to be shortlisted and require further repair, changes or additional work completion prior to final acceptance of the site. The State may then accept, reject, or request correction to the Work.

If the State determines that the Work meets the Contract Document requirements, the State will accept the Work and the Contractor may then invoice the State for payment.

If the State determines that the Work does not meet the Contract Documents requirements, the State will notify the Contractor that the Work is either defective or that the State is rejecting the Work. The State may, at the Contractor's cost, require special inspection or testing of the Work to determine if the Work can be corrected. If the Work can be corrected, the Contractor will correct such Work at its cost.

If the Contractor does not promptly correct the Work as required by the State, or in an emergency where delay would cause serious risk of loss or damage, the State may have the defective Work corrected or repaired or may have the defective Work removed and replaced. The State may deduct from the Contractor's payment, or invoice the Contractor, for the amount incurred by the State for the Work to be corrected.

If at any time during performance of the Work, the State finds that the Work is defective. or the Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, the State, in its sole discretion, may order the Contractor to stop the Work until the cause for such order has been eliminated.

- B. **AMENDMENT.** There can be no change to a term or condition in this Contract unless both parties agree to amend such term or condition. The State must reduce all Amendments to writing and both parties must sign the Amendment that reflects the change in the Contract.
- C. **AUDITS.** The Contractor must keep all financial records in a manner consistent with generally accepted accounting principles. Additionally, the Contractor must keep separate business records for this project, including records of disbursements and obligations incurred that must be supported by contracts, invoices, vouchers and other data as appropriate.

During the period covered by this Contract and until the expiration of three (3) years after final payment under this Contract, the Contractor agrees to provide the State, its duly authorized representatives or any person, agency or instrumentality providing financial support to the work undertaken hereunder,

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with access to and the right to examine any books, documents, papers and records of the Contractor involving transactions related to this Contract.

The Contractor must, for each subcontract in excess of two thousand five hundred dollars (\$2,500), require its subcontractors to agree to the same provisions of this Article. The Contractor may not artificially divide contracts with its subcontractors to avoid requiring subcontractors to agree to this provision. This provision does not apply to contracts where federal funds are used and the federal government requires audits of all subcontracts regardless of the amount of the contract.

The Contractor must provide access to the requested records no later than (5) five business days after the request by the State or any party with audit rights. If an audit reveals any material deviation from the Contract requirements, and misrepresentations or any overcharge to the State or any other provider of funds for the Contract, the State or other party will be entitled to recover damages, as well as the cost of the audit.

- D. BACKGROUND CHECKS.** The State may initiate investigations into the backgrounds of the Contractor, its employees or subcontractors, or any other individuals or entities related to the Contractor as deemed appropriate. Such background investigations may include fingerprint identification by the Ohio State Highway Patrol, the Federal Bureau of Investigation or any other agency designated by the State, and shall require the provision of information, as requested by the investigators. The costs associated with such background investigations will be charged to the Contractor. The State may reject a proposal or terminate any Contract awarded hereunder based upon the results of these background checks.
- E. BINDING EFFECT.** Subject to the limitations on assignment provided elsewhere in this Contract, this Contract will be binding upon and inure to the benefit of the respective successors and assigns of the State and the Contractor.
- F. CHANGE ORDERS.** The State or the Contractor may, from time to time, request additions, deletions, or revisions to the Work by issuing a Change Order. Upon receipt of a Change Order, the Contractor shall promptly proceed with the additions, deletions, or revisions to the Work. The Contractor shall provide a written justification of the increased or decreased costs resulting from the changes to the Work. Any modifications to cost are subject to review and approval by the State. .
- G. COMPLIANCE WITH LAW.** The Contractor must comply with all applicable federal, state, and local laws while performing under this Contract.
- H. CONFLICT OF INTEREST.** No Contractor or the personnel of the contractor shall act in any manner that conflict with the Contractor's responsibilities under this Contract. Such prohibited actions shall include, but are not limited to the following:
1. Voluntarily acquiring any personal interest that conflicts with the Contractor's responsibilities under the Contract
 2. Knowingly permit any Ohio public official or public who has any responsibility in any manner related to this Contract, acquire any interest or any entity under the Contractor's control
- The Contractor, upon obtaining knowledge that any person described above has acquired an impermissible or conflicting personal interest related to this Contract, shall do the following in a forthwith manner:
1. Disclose such information to the State; and
 2. Take immediate steps to ensure that the person does not participate in any action affecting the work under this Contract, unless the State determines that in light of the expeditious disclosure, such person's participation is not contrary to the public interest.
- I. CONTRACT CONSTRUCTION.** This Contract will be construed in accordance with the plain meaning of its language and neither for nor against the drafting party.

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MULTI-AGENCY RADIO COMMUNICATION
AND _____
FOR FORT RECOVERY**

- J. DECLARATION OF MATERIAL ASSISTANCE (“DMA”).** The Contractor represents and warrants that it has not provided any material assistance, as that term is defined in ORC Section 2909.33(C), to an organization that is identified by, and included on, the United States Department of State Terrorist Exclusion List and that it has truthfully answered “no” to every question on the DMA form. The Contractor further represents and warrants that it has provided or shall provide the DMA form through the Ohio Business Gateway at <http://business.ohio.gov/efiling/> prior to execution of this Contract. If these representations and warranties are found to be false, this Contract shall be void and the Contractor shall immediately repay to the State any funds paid under this Contract
- K. DRUG FREE WORKPLACE.** The Contractor agrees to comply with all applicable state and federal laws regarding drug-free workplace and shall make a good faith effort to ensure that all Contractor employees, while working on state property, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.
- L. ELECTIONS LAW.** The Contractor, by signature affixed on this document, hereby certifies that all applicable parties listed in Division (I) or (J) of O.R.C. Section 3517.13 are in full compliance with Divisions (I) and (J) of O.R.C. Section 3517.13.

If the Contractor accepts a Contract and/or purchase order issued under the Contract without proper certification, the Department of Administrative Services shall deem the Contractor in breach and the Contractor will be subject to all legal remedies available to the Department of Administrative Services up to and including debarment from doing business with the state of Ohio.

Additional information regarding Contribution Restrictions is available on the Office of Budget & Management’s website at: www.obm.ohio.gov.

- M. ENTIRE CONTRACT.** This Contract is composed of the following Contract Documents: 1) Request for Quote including all attachments; and 2) Selected Vendor’s proposal including all plans and specifications (“Plans and Specifications”) as approved by the State. If there are any conflicts between the documents, the order of precedence follows the order provided in this provision.
- N. EQUAL EMPLOYMENT OPPORTUNITY.** The Contractor will comply with all state and federal laws regarding equal employment opportunity and fair labor and employment practices, including Ohio Revised Code Section 125.111 and all related Executive Orders.

Before a contract can be awarded or renewed, an Affirmative Action Program Verification Form must be submitted to the Department of Administrative Services Equal Opportunity Division to comply with the affirmative action requirements. Affirmative Action Verification Forms and approved Affirmative Action Plans can be found by going to the Ohio Business Gateway at <http://business.ohio.gov/efiling/>

- O. ETHICS.** The Contractor certifies that the Contractor is currently in compliance and will continue to adhere to the requirements of Ohio ethics laws.
- P. FORCE MAJEURE (EXCUSABLE DELAY).** Neither the State nor the Contractor will be liable for any delay in the performance of their contractual obligations provided all of the following are applicable:
1. The delay is a result of a cause(s) beyond the control of the party asserting or invoking excusable delay,
 2. The delay or cause of the delay is not a result of the asserting party’s negligence or fault, and
 3. The asserting party could not have reasonably foreseen the delay or cause of the delay by exercising ordinary care.

In those cases where all of the above are applicable, the asserting party must provide all of the following in writing, prior to any impending delivery date or performance under the Contract:

1. Documentation describing the cause of the delay
2. Steps the asserting party will take to remove or overcome the cause of the delay, and
3. Reasonable time frame in which to resume delivery or performance pursuant to the Contract

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If the asserting party provides acceptable documentation as described above, the parties will agree that the date of the affected delivery or performance be extended for a period equal to the time lost because of the excusable delay or the time in which the asserted party provided in the documentation mentioned above, whichever is the earlier date.

For purposes of this section, the State deems that items controllable by a contractor's subcontractors are controllable by the Contractor.

Q. GOVERNING LAW. This Contract shall be governed by the laws of the state of Ohio, and the venue for any disputes will be exclusively with the appropriate court in Franklin County, Ohio.

R. HAZARDOUS MATERIALS. Contractor shall remain responsible for all suits, costs (including attorney's fees, expenses and court costs), claims, expenses, liabilities and judgments of every kind and description, with respect to the presence of hazardous materials.

(a) Except as otherwise expressly permitted in this Agreement, Contractor shall not use, create, store or allow any hazardous materials on the site. Fuel stored in a motor vehicle for the exclusive use in such vehicle is exempted. Additionally, Contractor has permission and shall install a back-up generator and store fuel for such generator at the Site. In no case shall Contractor cause or allow the deposit or disposal of any hazardous materials on the Site. The State, or its agents or contractors, shall at all times have the right to go upon and inspect the Site and the operations thereon to assure compliance with the requirements herein stated. This inspection may include taking samples of substances and materials present for testing, and/or the testing of soils or underground tanks on the Site.

(b) Accumulation, storage, treatment, or disposal of any waste material is prohibited; excepting only temporary storage, not to exceed fourteen (14) days, or nonhazardous solid refuse produced from activities on the Premises for pick up by municipal or commercial refuse service, and lawful use of sanitary sewers (if any) for domestic sewage.

(c) Manufacturing; maintenance of equipment (excluding communications equipment and back-up power sources such as batteries and generators operated pursuant to the Contract) or vehicles, or use, installation or construction of vessels, tanks, (stationary or mobile), dikes, sumps, or ponds; or any activity for which a license or permit is required from any government agency for (1) transportation, storage, treatment, or disposal of any waste, (2) discharge of any pollutant including but not limited to discharge to air, water, or a sewer system is prohibited.

(d) Any spill caused by Contractor or from Contractor's equipment resulting in a release of a hazardous material to the air, soil, surface water, or groundwater in violation of applicable law shall be immediately reported to Contractor as well as to appropriate government agencies and shall be promptly and fully cleaned up and the Premises (including soils, surface water, and groundwater) restored to its condition existing immediately prior to such spill or release, all in accordance with and as may be required by applicable law. Should Contractor desire to use pesticides on the Site or Premises (either herbicides, rodenticides, or insecticides) all applicable Environmental Protection Agency (EPA) standards must be met and prior approval must be received from Contractor and not all EPA approved pesticides will be permitted. Contractor will fill out form FG-880 and submit it to the State at least seven (7) days prior to application of pesticides. Contractor reserves the right to disapprove the use of any pesticide. Contractor shall obtain all county, state or federal permits required, including restricted pesticide use and burning permits and comply with all conditions of those permits. Contractor shall submit to the area manager a copy of all permits.

(e) In the event Contractor breaches any of the provisions of this Contract the Contract may be terminated immediately by Contractor and be of no further force or effect. It is the intent of the parties hereto that Contractor shall be responsible for and bear the entire cost of removal and disposal of hazardous materials introduced to the Site by Contractor during Contractor's period of use and possession as Contractor of the Site.

(f) Contractor shall also be responsible for any clean up and decontamination on or off the Site necessitated by the introduction of such hazardous materials on the Site. Contractor shall not be

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINSTRATIVE SERVICES
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responsible for or bear the cost of removal or disposal of hazardous materials introduced to the Site by any party other than Contractor during any period prior to commencement of Contractor's period of use and possession of the Site as Contractor.

- S. HEADINGS.** The headings in this Contract are for convenience only and will not affect the interpretation of any of the Contract terms and conditions.
- T. INDEPENDENT STATUS OF THE CONTRACTOR.** The parties are independent of one another, and the Contractor's personnel may act only in the capacity of representatives of the Contractor and not as representatives of the State. Further, the State will not deem Contractor's personnel, for any purpose, to be employees, representatives, or agents of the State. The Contractor assumes full responsibility for the actions of the Contractor's personnel while they are performing under this Contract and will be solely responsible for paying the Contractor's personnel (including withholding, paying income taxes and social security, workers' compensation, disability benefits and the like.) The Contractor may not commit, and is not authorized to commit, the State in any manner. The Contractor's subcontractors will be considered the agents of the Contractor for purposes of this Contract.
- U. INJUNCTIVE RELIEF.** Nothing in this Contract is intended to limit the State's right to injunctive relieve, if such is necessary to protect its interests or to keep it whole.
- V. INSURANCE/WORKERS' COMPENSATION:** The Contractor must provide and maintain the following insurance coverage at Contractor's own expense throughout the term of this Contract:
1. Workers' compensation insurance, as required by Ohio law, and if some of the Work will be done outside Ohio, the laws of the appropriate state(s) where any portion of the Work will be done.
 2. Commercial General Liability (CGL) insurance and, if necessary, commercial umbrella insurance, with a limit of not less than \$1,000,000 for each occurrence. The CGL shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury.
 3. Commercial auto liability insurance and, if necessary, commercial umbrella insurance, with a limit of not less than \$500,000 for each accident.

The Contractor must include the State as an additional insured under the CGL, commercial auto liability, and commercial umbrella (if any) policies. The insurance must apply as primary over any other insurance or self-insurance programs afforded to the Contractor.

Contractor waives all rights against the State for damages to the extent these damages are covered by the CGL, commercial auto, or commercial umbrella liability insurance maintained pursuant to this Contract.

The certificate(s) must be in a form that is reasonably satisfactory to the State as to the contents of the policies and the quality of the insurance carriers. All carriers must have at least an "A-" rating by A.M. Best & Co. The certificate must include the applicable Contract number.

The Contractor must, for each policy required by this Contract provide the Contracting Authority with thirty (30) day prior written notice of cancellation, or non-renewal, except a ten (10) days notice for non-payment of premium. Any failure to comply with this reporting provision will constitute a material breach of Contract and may be grounds for immediate termination of this Contract.

- W. NOTICES.** For any notice under this Contract to be effective the notice must be made in writing and sent to the address of the appropriate contact provided in the Contract.
- X. PERFORMANCE BOND.** The Contractor shall submit a performance bond in the form attached to this Contract (Exhibit 3) within seven (7) days of signature of this Contract by the State.

Under this Performance and Payment Bond Agreement, the Principal and Surety shall be responsible for the following:

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINSTRATIVE SERVICES
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1. The Principal shall faithfully perform the above referenced Contract, which is incorporated herein by reference and shall pay all indebtedness for labor and materials furnished or performed under the Contract.
2. In the event that the Principal fails to perform the Contract, the Principal and the Surety, jointly and severally, shall indemnify and save harmless the State from all cost and damage which the State may suffer by reason of Principal's failure to perform the Contract. Said indemnification shall include, but not be limited to, full reimbursement and repayment to the State for all outlays and expenses which the State may incur in making good any such default or failure to perform the Contract by the Principal.
3. Principal shall pay all persons all indebtedness for labor or material furnished or performed under the Contract and in doing so this obligation shall be null and void. In the event that Principal fails to pay for such indebtedness, such persons shall have a direct right of action against the Principal and Surety, jointly and severally, under this obligation, subject to the State's priority.
4. Principal shall guarantee the faithful performance of the prevailing hourly wage clause as provided in the Contract.

Y. PREVAILING WAGE RATES

1. Prevailing Wage Rate

- a. The Contractor shall pay the prevailing wage rates of the Work locality, as issued by the Ohio Department of Commerce, Wage and Hour Bureau to laborers performing the Work.
- b. The Contractor shall comply with the provisions, duties, obligations, and is subject to the remedies and penalties of Ohio Revised Code ("O.R.C.") Chapter 4115.
- c. If the Contractor or its subcontractors fail to comply with O.R.C. Chapter 4115, the State may withhold payment. The Contractor is liable for violations committed by the Contractor or its subcontractors.
- d. The Contractor shall submit all payroll reports in compliance with the requirements of paragraph 4 for all of the employees of the Contractor and of the Contractor's subcontractors. These reports should be submitted to Shelley Lulianelli, MARCS Administrative Assistant, 30 E Broad St., 39th Fl., Columbus OH 43215.
- e. By executing a Contract, the Contractor certifies that it based its Quote upon the prevailing rates of wages as ascertained by the Ohio Department of Commerce, Wage and Hour Bureau for the Work as provided in O.R.C. Sections 4115.03 through 4115.14.

2. Prevailing Wage Rate Revisions

- a. The State shall, within 7 business days after receipt of a notice of a change in the prevailing wage rates, notify the Contractor of the change. The prevailing wage rates are available at the Ohio Department of Commerce's web site: <http://www.com.state.oh.us>.
- b. The Contractor shall pay any revised wage rates issued during the term of the Contract.

3. Payroll Schedule

- a. Within 10 days of the date of the Notice to Proceed, the Contractor shall provide the State's Prevailing Wage Coordinator a schedule of dates during the term of the Contract on which wages shall be paid to employees for the Work. This information should be e-mailed to Shelley Lulianelli at "Shelley.lulianelli@oit.ohio.gov".

4. Payroll Reports

- a. The Contractor shall submit payroll reports with each invoice, which reports shall be certified by the Contractor that the payroll is correct and complete and the wage rates shown are not less than those required by the Contract. The Contractor is responsible for submitting all payroll reports of its subcontractors.

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- b. Each payroll report shall indicate the period covered and include a list containing the name, address and social security number of each employee of the Contractor and its subcontractors paid for the Work.
- c. Each payroll report shall list the number of hours each employee worked each day on the Work during the reporting period, the total hours each week on the Work, the employee's hourly rate of pay, job classification, hourly rate of fringe benefits, and all deductions from wages and net pay.
- d. Each payroll report shall list each fringe benefit and state if it is paid as cash to the employee or to a named plan.
- e. For each employee, each payroll report shall list the employee's gender and ethnicity, classified as Black, Hispanic, Asian Pacific Islanders, American Indians/Alaskan Native or non-minority.
- f. The Contractor and its subcontractors shall submit apprenticeship agreements for all apprentices utilized on the Project.

Z. PUBLICITY. The Contractor shall not do the following without prior, written consent from the State:

- 1. Advertise that the Contractor is doing business with the State; and
- 2. Use this Contract as a marketing or sales tool.

AA. RELATED WORK. The Contractor agrees that the State may require other contractors to complete work on the tower construction site during the time when the Contractor is constructing the tower. The Contractor agrees that it will coordinate its Work and share property for storage of materials and equipment with such other contractors to the extent possible. If, however, the other contractors work interferes with or causes delays or deficiencies in the Contractor's Work, the Contractor shall immediately notify the State of such interference, delay or deficiency.

BB. SAFETY AND PROTECTION. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 1. all persons on the tower construction site or who may be affected by the Work;
- 2. all the Work and materials and equipment to be incorporated therein whether in storage on or off the Site;
- 3. other property at the tower construction site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal relocation, or replacement in the course of tower construction.

The Contractor shall comply with all applicable laws and regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

CC. SCOPE OF WORK. The scope of work (the "Project") is described in the Request for Quote dated February 15, 2011.

DD. SEVERABILITY. If any provision of the Contract or the application of any provision is held by that court to be contrary to law, the remaining provisions of the Contract will remain in full force and effect.

EE. STRICT PERFORMANCE. If at any time either party fails at any time to demand strict performance by the other party of any of the terms of this Contract, such failure will not be construed as a waiver of any

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINSTRATIVE SERVICES
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FOR FORT RECOVERY**

such term, and either party may at any time demand strict and complete performance by the other party.

FF. SUBCONTRACTORS. The State recognizes that it may be necessary for the Contractor to use a subcontractor to perform a portion of the work under the Contract. In those circumstances, the Contractor shall submit a list identifying Contractor's subcontractors performing portions of the work under the Contract. If any changes occur during the term of the Contract, the Contractor shall supplement its list of subcontractors. The State reserves the right to reject any subcontractor submitted by the Contractor.

All subcontracts will be at the sole expense of the Contractor and the Contractor will be solely responsible for payment of its subcontractors. The Contractor assumes responsibility for all subcontracting work performed under the Contract. In addition, all subcontractors agree to be bound by all of the Terms and Conditions and specifications of the Contract. The Contractor will be the sole point of contact with regard to all contractual matters.

GG. SUPERVISION AND SUPERINTENDENCE. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction of the tower. At all times during the progress of the Work, Contractor shall assign a competent project superintendent who shall not be replaced without written notice to the State except under extraordinary circumstances. The superintendent will be Contractor's representative at the tower construction site and shall have authority to act on behalf of the Contractor. All communications given to or received from the superintendent shall be binding on the Contractor.

HH. TAXES. The State is exempt from all taxes and does not agree to pay any taxes.

II. TERM. The Term of this Contract begins upon the commencement date identified in the Notice to Proceed and shall end no later than sixty (60) consecutive days after the commencement date.

JJ. USE OF MBE AND EDGE VENDORS. The State encourages Contractor to purchase goods and services from Minority Business Enterprises (MBE) and Encouraging Diversity, Growth and Equity (EDGE) vendors.

KK. USE OF TOWER CONSTRUCTION SITE AND OTHER AREAS. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the tower construction site and other areas, and shall not unreasonably encumber the tower construction site and other areas with construction equipment or other materials or equipment. The Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

During the progress of the Work, Contractor shall keep the tower construction site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable laws and regulations.

Prior to completion of the Work, Contractor shall clean the tower construction site and the Work and make it ready for utilization by the State. At the completion of the Work, Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

IN WITNESS WHEREOF, the parties have executed this Agreement.

CONTRACTOR

STATE OF OHIO, DEPARTMENT OF
ADMINISTRATIVE SERVICES

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINISTRATIVE SERVICES
MULTI-AGENCY RADIO COMMUNICATION
AND _____
FOR FORT RECOVERY**

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

**CONTRACT BETWEEN THE DEPARTMENT OF ADMINSTRATIVE SERVICES
MULTI-AGENCY RADIO COMMUNICATION
AND _____
FOR FORT RECOVERY**

EXHIBIT 1

Performance and Payment Bond Form

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned, as Principal, at _____ (Address) and _____ as Surety, are hereby held and firmly bound unto the State of Ohio, as Obligee, in the penal sum of _____ dollars (this amount must not be less than the full amount of the Contract, in dollars and cents; a percentage is not acceptable), for the payment of which well and truly to be made, we jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns to undertake the Project known as:

Project Name: _____.

SIGNED AND SEALED this ____ day of _____, _____.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal did on the _____ day of _____, _____, enter into a Contract with the State of Ohio, which said Contract is made a part of this Bond the same as though set forth herein;

NOW, THEREFORE, if the above-named Principal shall well and faithfully do and perform the things agreed by the Obligee to be done and performed according to the terms of said Contract; and shall pay all lawful claims of subcontractors, material suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any subcontractor, material supplier or laborer having a just claim as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

Under this Performance and Payment Bond Agreement, the Principal and Surety shall be responsible for the following:

1. The Principal shall faithfully perform the above referenced Contract, which is incorporated herein by reference and shall pay all indebtedness for labor and materials furnished or performed under the Contract.
2. In the event that the Principal fails to perform the Contract, the Principal and the Surety, jointly and severally, shall indemnify and save harmless the State from all cost and damage which the State may suffer by reason of Principal's failure to perform the Contract. Said indemnification shall include, but not be limited to, full reimbursement and repayment to the State for all outlays and expenses which the State may incur in making good any such default or failure to perform the Contract by the Principal.
3. Principal shall pay all persons all indebtedness for labor or material furnished or performed under the Contract and in doing so this obligation shall be null and void. In the event that Principal fails to pay for such indebtedness, such persons shall have a direct right of action against the Principal and Surety, jointly and severally, under this obligation, subject to the State's priority.
4. Principal shall guarantee the faithful performance of the prevailing hourly wage clause as provided in the Contract.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of said Contract or in or to the Plans and Specifications therefore shall in any way affect the obligations of said Surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions in or to the terms of the Contract, the Work or the Contract Documents, including without limitation the Plans and Specifications.

Tel: 740.344.5451
Fax: 740.344.5746

59 Grant Street
Newark, Ohio 43055

**LEASE AREA
DESCRIPTION FOR A 0.009 ACRE TRACT**

Situated in the State of Ohio, County of Mercer, Township of Gibson, Village of Fort Recovery, being a part of Lot 36 (Parcel No. 1309380005) of the "Old Plat in the Village of Ft. Recovery" recorded in Plat Book 1, Page 39, and conveyed to Fort Recovery Fire Fighters Association Inc. by deed of record in Official Record 64, Page 227, all references being to those of record in the Recorder's Office, Mercer County, Ohio, said 0.009 acre tract being more particularly bounded and described as follows:

Commencing at a point marking the intersection of the easterly right-of-way line of Main Street (66' wide) and the southerly right-of-way line of a 16.5 foot wide alley, the same being the northwesterly corner of Lot 36;

Thence along the northerly line of Lot 36 and the southerly line of said alley, **South 83°50'06" East**, a distance of **165.00 feet** to a point in the westerly line of a 16.5 foot wide alley marking the northeasterly corner of Lot 36;

Thence along the easterly line of Lot 36 and the westerly line said alley, **South 06°42'16" West**, a distance of **59.00 feet** to a point;

Thence leaving the easterly line across Lot 36, **North 83°50'06" West**, a distance of **56.19 feet** to a point and being the **Point of Beginning** for the **0.009 acre LEASE AREA** herein to be described;

Thence **South 06°35'38" West**, a distance of **20.00 feet** to a point;

Thence **North 83°50'06" West**, a distance of **20.00 feet** to a point on the wall of existing Firehouse Building;

Thence along said wall, **North 06°35'38" East**, a distance of **20.00 feet** to a point;

Thence leaving said wall across Lot 36, **South 83°50'06" East**, a distance of **20.00 feet** to the **Point of Beginning** and containing **0.009 acres**, more or less, according to a survey conducted by Jobs Henderson and Associates, Inc. in December of 2010.

**LEASE AREA
DESCRIPTION FOR A 0.009 ACRE TRACT**

Page 2

The bearings in the above description are based on the Ohio State Plane Coordinate System, South Zone.

Subject to all valid and existing easements, restrictions and conditions of record.



December 28, 2010

P:/O14-05/survey/legals/ft. recovery/0.009acres

A handwritten signature in blue ink, appearing to read "Jeremy L. Van Ostran", written over a horizontal line.

Jeremy L. Van Ostran, P.S.
Surveyor No. 8283

Tel: 740.344.5451
Fax: 740.344.5746

59 Grant Street
Newark, Ohio 43055

**UTILITY AND ACCESS EASEMENT
DESCRIPTION FOR A 0.026 ACRE TRACT**

Situated in the State of Ohio, County of Mercer, Township of Gibson, Village of Fort Recovery, being a part of Lot 36 (Parcel No. 1309380005) of the "Old Plat in the Village of Ft. Recovery" recorded in Plat Book 1, Page 39, and conveyed to Fort Recovery Fire Fighters Association Inc. by deed of record in Official Record 64, Page 227, all references being to those of record in the Recorder's Office, Mercer County, Ohio, said 0.026 acre tract being more particularly bounded and described as follows:

Commencing at a point marking the intersection of the easterly right-of-way line of Main Street (66' wide) and the southerly right-of-way line of a 16.5 foot wide alley, the same being the northwesterly corner of Lot 36;

Thence along the northerly line of Lot 36 and the southerly line of said alley, **South 83°50'06" East**, a distance of **165.00 feet** to a point in the westerly line of a 16.5 foot wide alley marking the northeasterly corner of Lot 36;

Thence along the easterly line of Lot 36 and the westerly line said alley, **South 06°42'16" West**, a distance of **59.00 feet** to a point and being the **Point of Beginning** for the **0.026 acre UTILITY AND ACCESS EASEMENT** herein to be described;

Thence continuing along said line, **South 06°42'16" West**, a distance of **20.00 feet** to a point;

Thence leaving the easterly line across Lot 36 the following three (3) bearings and distances;

North 83°50'06" West, **56.15 feet** to a point

North 06°35'38" East, **20.00 feet** to a point; and . . .

South 83°50'06" East, **56.19 feet** to the **Point of Beginning** and containing **0.026 acres**, more or less, according to a survey conducted by Jobes Henderson and Associates, Inc. in December of 2010.

The bearings in the above description are based on the Ohio State Plane Coordinate System, South Zone.

**UTILITY AND ACCESS EASEMENT
DESCRIPTION FOR A 0.026 ACRE TRACT**

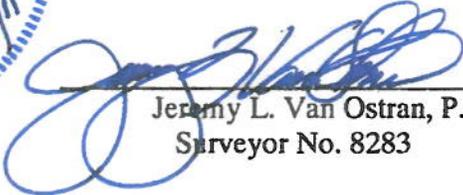
Page 2

Subject to all valid and existing easements, restrictions and conditions of record.



December 28, 2010

P:/O14-05/survey/legals/ft. recovery/0.026acres



Jeremy L. Van Ostran, P.S.
Surveyor No. 8283

December 22, 2010

Mr. Kenneth B. Stewart, P.E.
VP Director of Land Development
Jobs Henderson & Associates, Inc.
59 Grant Street
Newark, Ohio 43055

Re: Geotechnical Engineering Services Report
Proposed Communication Tower
111 South Main Street
Ft. Recovery, Mercer County, Ohio
PSI File No: 0125-384

Dear Mr. Stewart:

In compliance with your instructions, we have conducted a subsurface exploration and foundation evaluation for the above-referenced project. The results of this exploration, together with our recommendations, are to be found in the accompanying report, three (3) copies of which are being transmitted herewith.

After the plans and specifications are complete, PSI should review the final design and specifications in order to verify that the foundation recommendations are properly interpreted and implemented. **It is considered imperative that the geotechnical engineer and/or its representative be present during earthwork operations and foundation installations to observe the field conditions with respect to the design assumptions and specifications.**

If you will advise us of the appropriate time to discuss these engineering services, we will be pleased to meet with you at your convenience.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.



Raymond G. France
Branch Manager



A. Veeramani, P.E.
District Manager

RF/ss



**GEOTECHNICAL ENGINEERING
SERVICES REPORT**

FOR THE PROPOSED

**PROPOSED 100' COMMUNICATION TOWER
FT. RECOVERY FIRESTATION
111 SOUTH MAIN STREET
FT. RECOVERY, MERCER COUNTY, OHIO**

PREPARED FOR

**JOBES HENDERSON & ASSOCIATES, INC.
59 GRANT ROAD
NEWARK, OHIO 43055**

PREPARED BY

**PROFESSIONAL SERVICE INDUSTRIES, INC.
3739 SHAWNEE ROAD
LIMA, OH 45806**

PSI FILE NUMBER: 0125-384

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APPENDIX



*Jobes Henderson & Associates, Inc.
Re: Proposed 100' Communication Tower
PSI Project No.: 0125-384
December 22, 2010*

PROJECT INFORMATION

Project Authorization

This report presents the results of a subsurface exploration conducted for Jobes Henderson & Associates, Inc., in connection with the proposed Ft. Recovery Fire Station Communication Tower located at 111 South Main Street, in the City of Ft. Recovery, Mercer County, Ohio. PSI's services for this project were performed in accordance with PSI Proposal No. 0125-34561, dated November 20, 2010. The proposal included a proposed scope of services, estimated cost, unit rates and PSI's General Conditions. Authorization to perform this exploration and analysis was in the form of signed acceptance of the aforementioned proposal, acknowledged by Mr. Kenneth B. Stewart, VP Director of Land Development, of Jobes Henderson & Associates, Inc.

Project Description

Project information has been provided by Mr. Kenneth B. Stewart, VP Director of Land Development, of Jobes Henderson & Associates, Inc. Based on the provided information, it is understood that the proposed project will include the construction of a new monopole communication tower supported by a caisson foundation. The proposed tower is to be approximately 100-feet in height with three antennae arrays at 50', 80' and 100' above the existing surface grade. PSI understands the equipment servicing the communication tower will be housed in the adjacent existing Ft. Recovery Fire Station Building and will not require construction of an equipment housing structure.

No other information, such as topographical plan etc., was available at time of this report submittal. However, based on the visual site observations, it is expected that minimal grading operations will be required for the proposed development.

If any of the noted information is incorrect or has changed, please inform PSI so that we may amend the recommendations presented in this report, if appropriate.



Jobes Henderson & Associates, Inc.
Re: Proposed 100' Communication Tower
PSI Project No.: 0125-384
December 22, 2010

Purpose and Scope of Services

The purpose of this exploration was to evaluate the soil, rock and groundwater conditions at the site to provide geotechnical recommendations for the building and tower foundation design and construction. The scope of the exploration and analysis included a reconnaissance of the project site, a review of geologic maps of the area, drilling one (1) standard test borings to a depth of about 40 feet below the existing ground surface, a laboratory testing program, and an engineering analysis and evaluation of the subsurface materials.

The scope of services did not include an environmental assessment for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors, colors or unusual or suspicious items or conditions are strictly for the information of the client. Prior to development of this site, an environmental assessment is advisable.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The site area for the proposed Communication Tower, upon which this subsurface exploration has been performed, is located within the existing Ft. Recovery Fire Station facility at 111 South Main Street, in the City of Ft. Recovery, Mercer County, Ohio. Specifically, the proposed Monopole Tower Structure will be located approximately 8 feet east of the Fire Station Buildings east wall at about 50 feet south the buildings northeast corner.

Based on the visual site observations, the proposed site is currently covered with concrete pavement and sidewalk. Topographical information was not provided at the time of this submittal. However, site observation of the project area by PSI indicates the proposed site area gradually slopes downward to the north and east with a maximum elevation difference estimated to about 1 to 2 feet. Surface drainage at the time of the field drilling operations appeared to be provided by surface runoff and through a storm trench drain installed in the pavement area.



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Underground or overhead utilities were observed in the area of the proposed construction. We recommend that any existing utilities be marked prior to construction activities.

Subsurface Conditions

The general subsurface conditions at the site were explored with one (1) test boring drilled to a depth of about 40 feet each below the existing surface grades. The location of the test boring was located in the field by PSI based on information provided by the representatives of Jobes Henderson & Associates, Inc. The test boring locations are shown on the Boring Location Plan provided in the *Appendix* of this report. Field and laboratory tests were accomplished in general accordance with ASTM specifications.

The types of foundation bearing materials encountered in the test borings have been visually classified. The results of the visual classifications, the Standard Penetration tests, water level observations and moisture content tests are presented on the boring logs which are provided in the *Appendix* of this report. Representative samples of the soils were placed in sample jars, and are now stored in the laboratory for further analysis, if requested. Unless notified to the contrary, all samples will be disposed of after 60 days.

The surface of the site at the test boring location B-1 was covered with a layer of Poorly Graded Gravel of about 4.5 inches in thickness. The thickness of the Gravel should be expected to be variable throughout the site areas. Note that an existing concrete section was removed prior to PSI drilling activities.

Below the Gravel, miscellaneous fill soils consisting of Lean Clay was encountered at the test boring location to a depth of approximately 3.0 feet below the existing surface grades. The fill soil exhibited a moisture content of about 23 percent. The depth and engineering characteristics of the fill materials, such as composition, strength and compressibility, are likely to be widely variable

The miscellaneous fill soils were underlain by natural soils consisting of Silty/Clayey Sand, Well Graded Sand, Sandy Lean Clay, Gravelly Lean Clay containing varying degrees of Gravel and Cobbles. The natural soils were encountered to the boring termination depth of about 40 feet below the existing surface grade. The natural soils exhibited moisture contents ranging from approximately 15 to 23 percent. The natural cohesive soils exhibited stiff to hard consistency while the natural granular soils displayed loose to medium dense consistency based on the Standard Penetration tests.

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The subsurface description is of a generalized nature provided to highlight the major strata encountered. The boring logs included in the *Appendix* of this report should be reviewed for specific information as to individual test positions. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between the boring locations. The stratifications represent the approximate boundary between the subsurface materials, and the transition may be gradual or not clearly defined.

Groundwater Conditions

Groundwater was encountered at a depth of approximately 12 feet below the existing surface grade. Upon completion of drilling, groundwater was observed at a depth of about 8 feet below the existing surface grade. Therefore, groundwater will be encountered during foundation excavation and construction. However, please note groundwater levels fluctuate seasonally as a function of rainfall. During a time of year or weather different from the time of drilling, there may be a considerable change in the water table. Furthermore, the water levels in the boreholes often are not representative of the actual groundwater level, because the boreholes remain open for a relatively short time. Therefore, we recommend that the contractor determine the actual groundwater levels at the time of construction to evaluate groundwater impact on the construction procedures.

EVALUATION AND RECOMMENDATIONS

Foundation Recommendations and Construction

Communication Tower

We anticipate that uplift loading will control tower foundation design and construction. Accordingly, we recommend that caisson foundations bearing within the area's natural soil formation be used to support the proposed Communication Tower. We recommend that the design parameters shown in the following Table No. 1 be used to design the tower foundations:



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TABLE NO. 1

Depth Range Ft.	Ultimate Shear Strength	Ultimate Friction (psf)	Ultimate End Bearing (psf)	Lateral Modulus (k,pci)	Strain Factor (E_{50})
0-4	Neglect	--	--	--	--
5-12	C = 2,000	1,200	9,000	200	0.007
12-22	$\phi = 28^\circ$	1,400	7,500	60	N/A
22-40	C=2,200	1,500	10,000	400	0.005

Design Groundwater Depth: 8 feet

A factor of safety of 2.0 should be applied to the design loads to define pier dimensions. Casing and/or slurry will be required for pier installation. Concrete with a slump of 6-8 inches should be used for the pier. When the drilling operations are complete, concrete should be placed inside the casing as soon as possible. It is recommended that concrete in a caisson be poured the same day that the caisson is drilled.

A qualified representative of PSI should verify that caissons are founded on competent bearing materials and that the caisson installation procedures comply with the specifications.

Excavations

In Federal Register, Volume 54, No. 209 (October, 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, Part 1926, Subpart P". This document was issued to better insure the safety of workers entering trenches or excavations. It is mandated by this federal regulation that all excavations, whether they be utility trenches, basement excavations or foundation excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced. If they are not followed closely, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to



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Re: Proposed 100' Communication Tower
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maintain stability of both the excavation sides and bottom. The contractor's "responsible person" as defined in "29 CFR Part 1926", should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

If the excavations are left open and exposed to the elements for a significant length of time, desiccation of the soils may create minute shrinkage cracks which could allow large pieces of clay to collapse or slide into the excavation.

Materials removed from the excavation should not be stockpiled immediately adjacent to the excavation, inasmuch as this load may cause a sudden collapse of the embankment.

Weather Considerations

The soils encountered at this site are known to be sensitive to disturbances caused by construction traffic and to changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. Care should be exercised during the grading operations at the site. Due to the fine-grained nature of the surficial soils, the traffic of heavy equipment, including heavy compaction equipment, may very well create pumping and a general deterioration of those soils in the presence of water. Therefore, the grading should, if at all possible, be performed during a dry season. A layer of crushed stone may be required to allow the movement of construction traffic over the site during the rainy season. The contractor should maintain positive site drainage and if wet/pumping conditions occur, the contractor will be responsible to over excavate the wet soils and replace them with a properly compacted engineered fill.



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Re: Proposed 100' Communication Tower
PSI Project No.: 0125-384
December 22, 2010

REPORT LIMITATIONS

The recommendations submitted are based on the available subsurface information obtained by PSI and design details furnished by Mr. Kenneth B. Stewart, VP Director of Land Development, of Jobes Henderson & Associates, Inc. for the proposed project. If there are any revisions to the plans for the proposed structure, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be retained to determine if changes in the foundation recommendations are required. If PSI is not retained to perform these functions, PSI will not be responsible for the impact of those conditions on the geotechnical recommendations for the project.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein, have been presented after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics and engineering geology. No other warranties are implied or expressed.

After the plans and specifications are complete, it is recommended that PSI be provided the opportunity to review the final design and specifications, in order to verify that the earthwork and foundation recommendations are properly interpreted and implemented. At that time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of the Jobes Henderson & Associates, Inc. for the specific application to the proposed 100' Communication Tower located at The Ft. Recovery Fire Station at 111 South Main Street in the City of Ft. Recovery, Mercer County, Ohio.

APPENDIX

Boring Location Plan

Boring Logs

General Notes

USCS Soil Classification Chart



Existing Ft. Recovery Fire Station

PSI Information
To Build On
Engineering • Consulting • Testing
3739 Shawnee Road Lima, Ohio 45806

⊕ - Indicates approximate Test Boring Location

TEST BORING LOCATION PLAN

Proposed Cell Tower Project
Ft. Recovery, Mercer County, Ohio

SCALE:
NTS

DATE:
December 21, 2010

PROJECT NO.
125-384

RECORD OF SUBSURFACE EXPLORATION

B-1

Project Name: Proposed Cell Tower
Site: Ft. Recovery, Ohio

Date of Boring: December 9, 2010
Project No.: 0125384

Description	Depth(ft)	Sample	N ₆₀	Q _p	M _c	Rec.	Remarks
4-1/2" POORLY GRADED GRAVEL (Crushed), FILL (GP).		SS-1	7	2.00	23	14	
Stiff, Moist, Gray, <u>LEAN CLAY W/ SAND, FILL (CL)</u> .							
Very Stiff to Hard, Damp, Brown, <u>LEAN CLAY W/ SAND, (CL)</u> .	5	SS-2	14	4.00	23	15	
		SS-3	22	4.5+	18	18	
	10	SS-4	24	4.5+	18	18	Water at 8' at completion of drilling. 
Loose, Wet, Gray, <u>SILTY OR CLAYEY SAND (Fine) W/ GRAVEL (SW-SC)</u> .	15	SS-5	5	-	19	15	Water encountered at 12' while drilling. 
	20	SS-6	20	-	15	18	
Medium Dense, Wet, Gray, <u>WELL GRADED SAND W/ CLAY (SW-SC)</u> .							
Very Stiff, Moist, Gray, <u>SANDY LEAN CLAY W/ GRAVEL (CL)</u> .	25	SS-7	14	-	17	4	
Hard, Damp, Gray, <u>GRAVELLY LEAN CLAY</u> . Some Coarse Gravel and Cobbles Encountered, (CL).	30	SS-8	25	3.50	15	12	
	35	SS-9	19	-	20	10	
Very Stiff / Medium Dense, Wet, Gray, <u>SANDY LEAN CLAY or CLAYEY SAND (Fine), (CL/SC)</u> .							
Very Stiff, Moist, Gray, <u>LEAN CLAY (CL)</u> .		SS-10	18	1.75	18	15	
END OF BORING AT 40'.	40						
	45						
	50						

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System and ASTM D2487 and ASTM D2488 are used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

- N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch O.D. split-spoon.
- Q_u : Unconfined compressive strength, tsf.
- Q_p : Penetrometer value, index value of unconfined compressive strength, tsf.
- W_c : Water content, %.
- PL: Plastic Limit, %.
- LL: Liquid Limit, %.
- PI: Plasticity Index.
- γ_d : Natural dry density, pcf.
-  Groundwater level observed at time noted after completion of boring.

DRILLING AND SAMPLING SYMBOLS

- SS: Split-Spoon – 1 3/8" ID., 2" O.D., except where noted.
- ST: Shelby Tube – 3" O.D., except where noted
- AU: Auger Sample.
- RC: Rock Core (approx. 2" diameter)
- WS: Washed Sample

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION (Terzaghi & Peck, 1948)

<u>TERM (COHESIONLESS SOILS)</u>	<u>STANDARD PENETRATION RESISTANCE</u>
Very Loose	0 – 4
Loose	5 – 10
Medium	11 – 30
Dense	31 – 50
Very Dense	51 and over
<u>TERM (COHESIVE SOILS)</u>	<u>Q_u – (TSF)</u>
Very Soft	0 – 0.24
Soft	0.25 – 0.49
Medium	0.50 – 0.99
Stiff	1.00 – 1.99
Very Stiff	2.00 – 4.00
Hard	4.00+

PARTICLE SIZE (ASTM D2487 AND D422)

Boulders	≥ 12 in. (300mm)	Medium Sand	<2mm (#10 sieve) to 425 μ m (#40 sieve)
Cobbles	< 12in. (300mm) to 3 in. (75 mm)	Fine Sand	<425 μ m (#40 sieve) to 75 μ m (#200 sieve)
Gravel	< 3in. (75mm) to 4.75mm (#4 sieve)	Silt	<75 μ m (#200 sieve) to 5 μ m
Coarse Sand	< 4.75mm (#4 sieve) to 2mm (#10 sieve)	Clay	<5 μ m

**Unified Soil Classification System
(ASTM Designation D-2487)**

Major division		Group symbols	Typical names	
Coarse-grained soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction passes No. 4 sieve	Clean gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
		Gravels with fines	GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Clean sands	GM	Silty gravels, gravel-sand-silt mixture
		Sands with fines	GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean sands	SW	Well-graded sands and gravelly sands, little or no fines
		Sands with fines	SP	Poorly graded gravels and gravel-sand mixtures, little or no fines
			SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-grained soils 50% or more passes No. 200 sieve	Silts and clays Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and clays Liquid limit greater than 50%		MH	Inorganic silts, micaceous, or diatomaceous fine sand or silts, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly organic soils			Pt	Peat, muck, and other highly organic soils

Prepared For

M.A.R.C.S.

MULTI AGENCY RADIO COMMUNICATION SYSTEM FT. RECOVERY TELECOMMUNICATIONS TOWER

1/13/2011

SITE INFORMATION

OWNER:
OHIO MARCS
RHODES STATE OFFICE TOWER
20 E. BRIMCOY STREET
COLUMBUS, OH 43206
PH: (614) 995-0060

APPLICANT:
OHIO MARCS
RHODES STATE OFFICE TOWER
20 E. BRIMCOY STREET
COLUMBUS, OH 43206
PH: (614) 995-0060

SITE ADDRESS:
111 S. MAIN STREET
FORT RECOVERY, OH 45846

COUNTY:
MERCER

LATITUDE:
40° 24' 44" N

LONGITUDE:
81° 46' 40" W

BENCH MARKS:
CONTROL POINT NO. 1
OHIO STATE PLANE
NAUDS3 NAVD 88 (GEO08)
N = 2769662.4737
E = 1334189.0354
ELEV. = 932.36

CONTROL POINT NO. 2
OHIO STATE PLANE
NAUDS3 NAVD 88 (GEO08)
N = 2769636.1700
E = 1334361.1029
ELEV. = 933.23

ZONING CLASSIFICATION:
COMMERCIAL

ZONING JURISDICTION:
VILLAGE OF FORT RECOVERY

GAS COMPANY:
DOMINION GAS COMPANY

POWER COMPANY:
THE DAYTON POWER AND LIGHT COMPANY

TELCO PROVIDER:
FRONTIER COMMUNICATIONS

ENGINEER & SURVEYOR:
JOHNS HENDERSON & ASSOCIATES
59 GRANT STREET
NEWARK, OH, 43005
PH: (740) 344-5451

CONCRETE & SOIL TESTING:
P.S.J. INC.
6525 CANAL ROAD
PH: (606) 447-1535

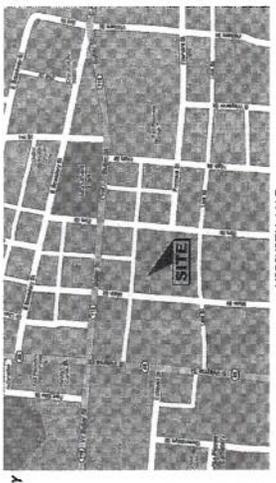
TITLE SHEET

SHEET NUMBER	TITLE
1	TITLE SHEET
2	SURVEY
3,4	GENERAL NOTES
5	LAYOUT PLAN
6	BUILDING ELEVATION
7	TOWER SPECIFICATIONS
8	TOWER ELEVATION AND DETAILS
9	GROUNDING PLAN, NOTES AND DETAILS
10	GROUNDING DETAILS
11	GROUND TEST PROCEDURE DETAIL

INDEX OF SHEETS:
SHEET TITLE
TITLE SHEET
SURVEY
GENERAL NOTES
LAYOUT PLAN
BUILDING ELEVATION
TOWER SPECIFICATIONS
TOWER ELEVATION AND DETAILS
GROUNDING PLAN, NOTES AND DETAILS
GROUNDING DETAILS
GROUND TEST PROCEDURE DETAIL



LOCATION MAP
(NOT TO SCALE)



VICINITY MAP
(NOT TO SCALE)

UNDERGROUND UTILITIES
CALL BEFORE YOU DIG
1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-825-0988

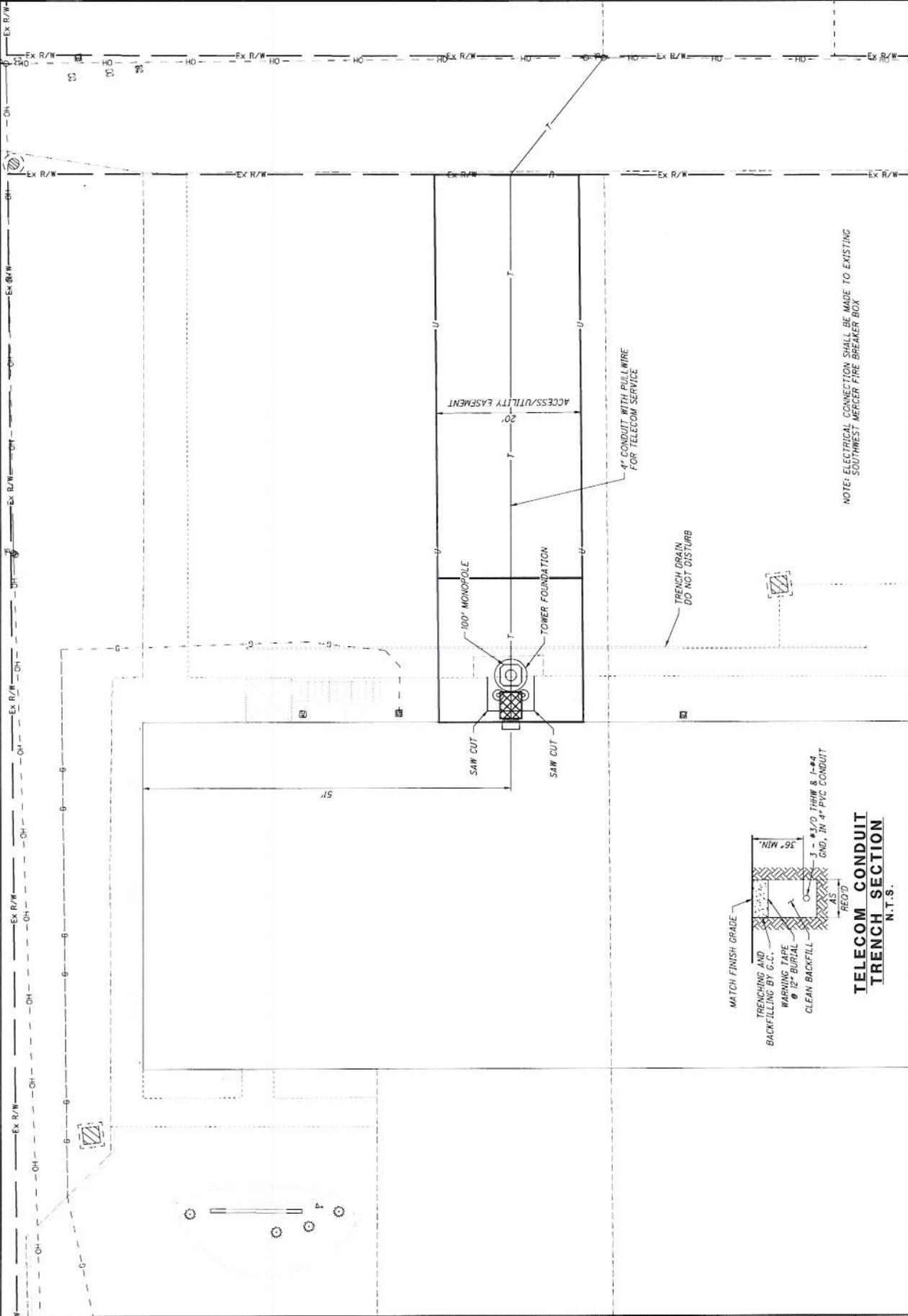
CERTIFICATION
I HEREBY CERTIFY THAT I DID SUPERVISE THE PREPARATION OF THESE PLANS THIS DATE DAY OF February 20 11.
KENNETH B. STEWART



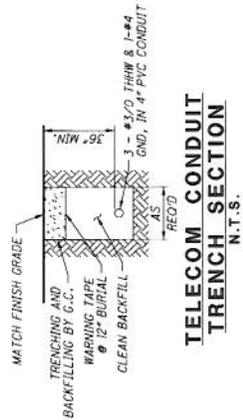
FORT RECOVERY TELECOM TOWER

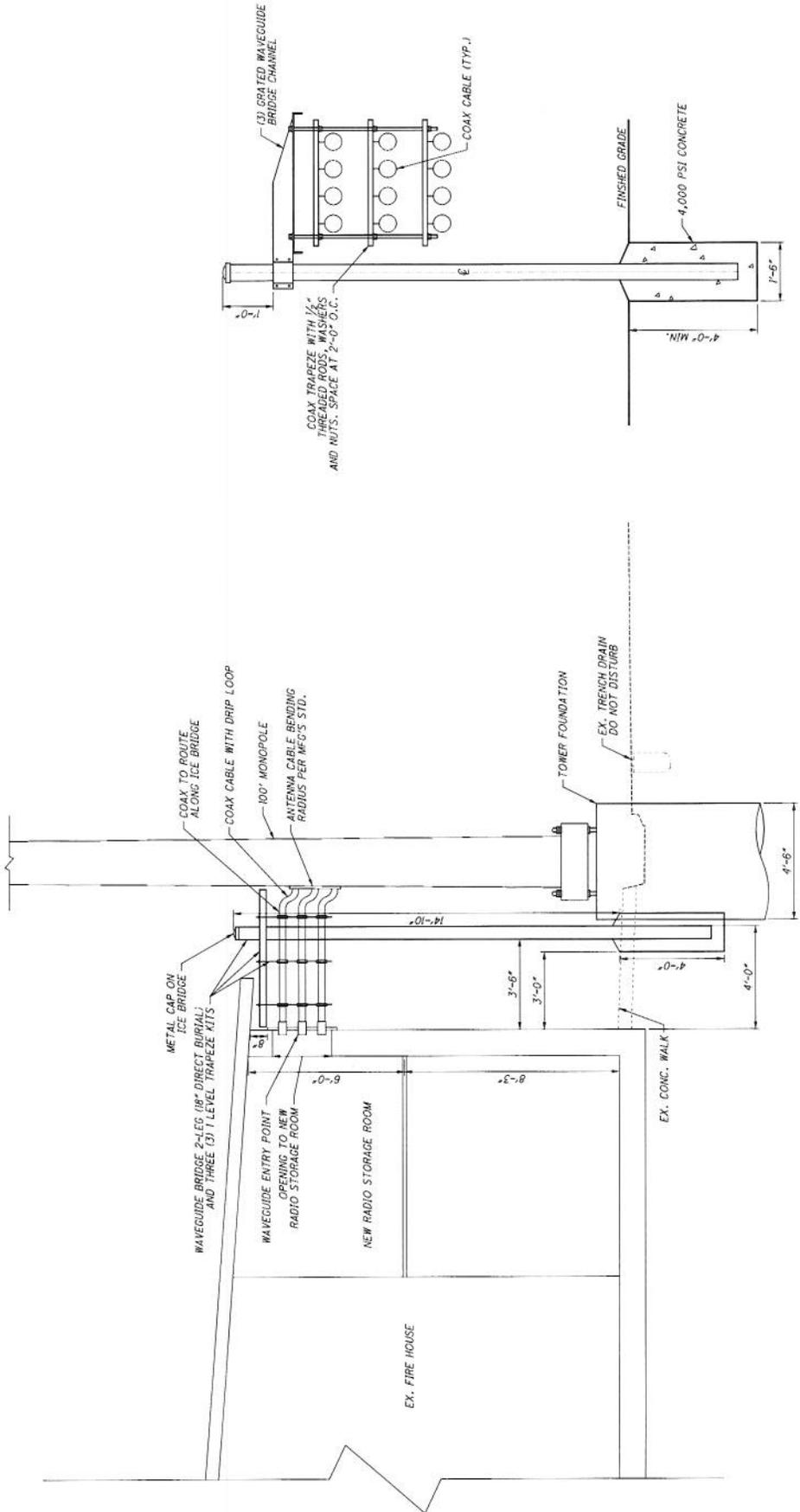


CALCULATED
CHECKED
RBS

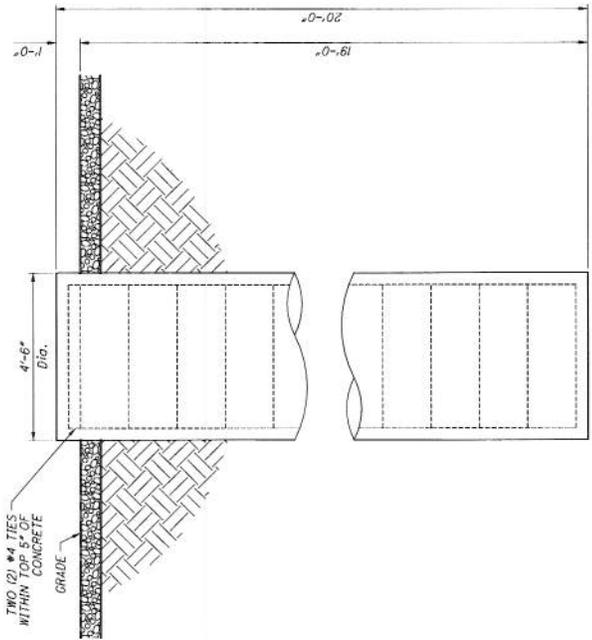
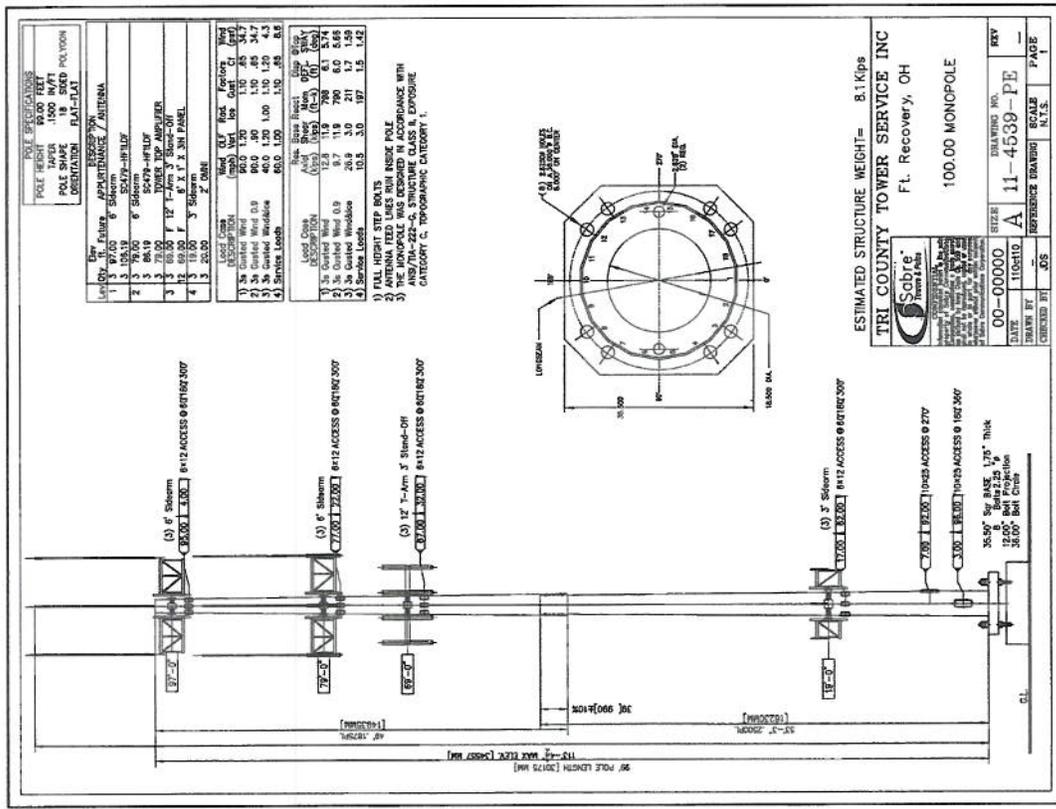


NOTE: ELECTRICAL CONNECTION SHALL BE MADE TO EXISTING SOUTHWEST MERCER FIRE BREAKER BOX





ICE BRIDGE SECTION
 N.T.S.

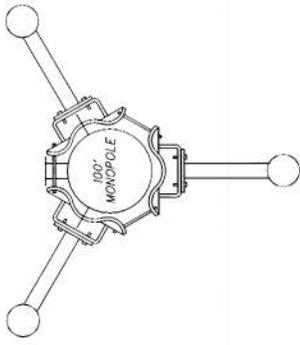


FOUNDATION ELEVATION VIEW

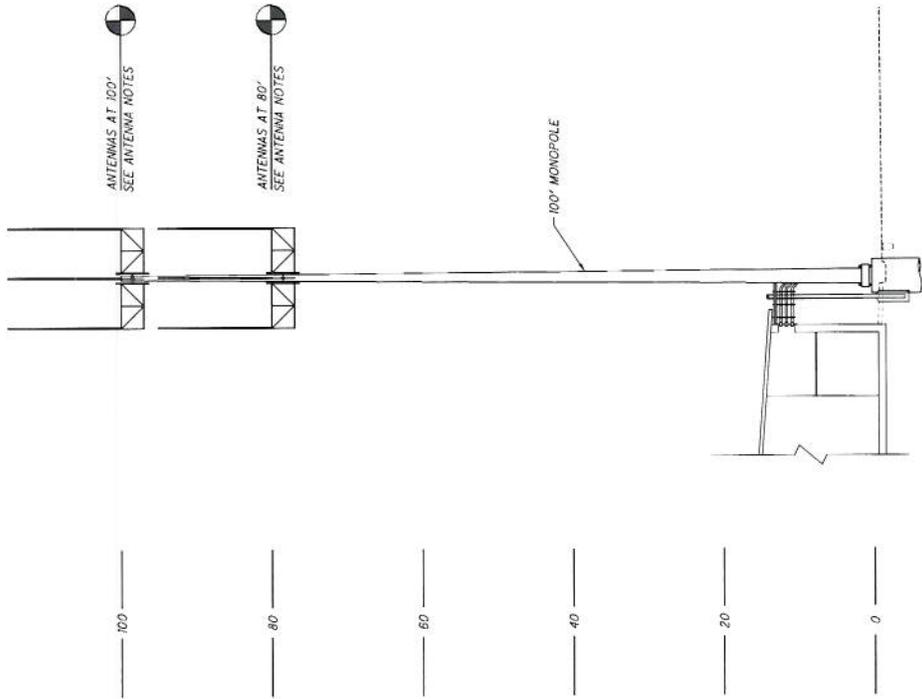
(1) 28 Cu. Yds. each
If Required, Not to Scale

- Notes:
- Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-05
 - Rebars to conform to ASTM specification A615 Grade 60
 - All rebar to have a minimum of 3" concrete cover.
 - All exposed concrete corners to be chamfered 3/4"
 - The foundation design is based on the geotechnical report by Professional Service Industries, Inc., File No. 0105-284, dated December 22, 2010.
 - The foundation is based on the following factored loads:
Moment (kip-ft) = 575
Axial (kip) = 9
Shear (kip) = 8.9

Rebar Schedule per Pier
Pier
(20) #8 vertical rebar w/ #4 ties, Two within Top 5" of pier then 12" C/C



ANTENNA ALIGNMENT DETAIL AT 100' AND 80'
 NTS

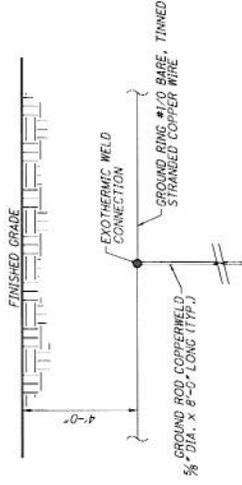


ANTENNA NOTES

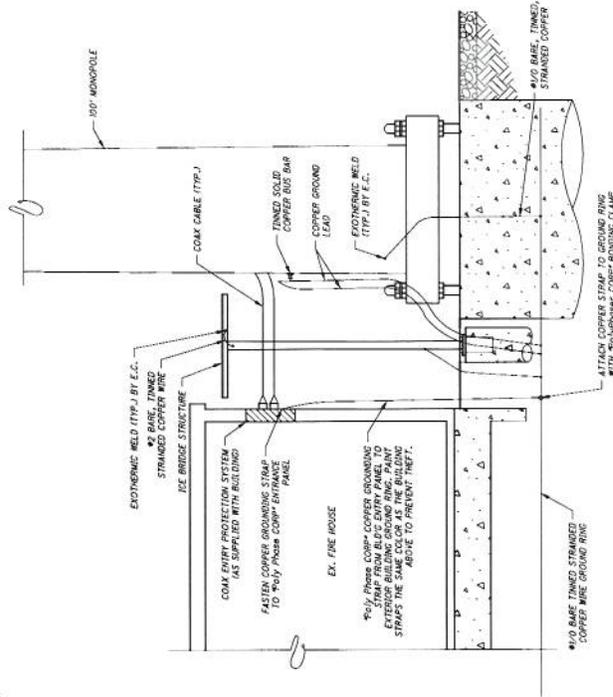
ANTENNAS AT ELEVATION 100' - (3) SC476-HFLDFIES765), (3) SIX FOOT SIDE ARMS,
 (3) 1-1/4" TRANSMISSION LINE

ANTENNAS AT ELEVATION 80' - (3) SC476-HFLDFIES765), (3) SIX FOOT SIDE ARMS,
 (3) 3/8" TRANSMISSION LINE

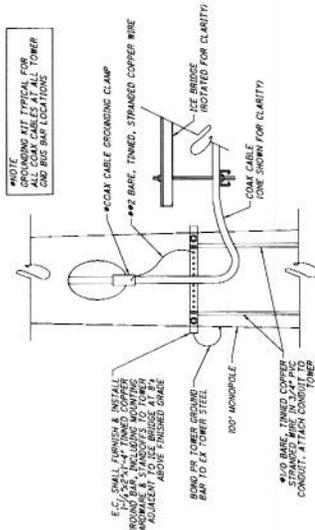
ANTENNAS AT ELEVATION 80' - (3) TTA, (3) 3/8" TRANSMISSION LINE



GROUND ROD DETAIL
N.T.S.



INTERIOR/EXTERIOR GROUND BAR DETAIL
N.T.S.



TOWER COAX GROUND BAR DETAIL
N.T.S.

INTERIOR/EXTERIOR GROUND BAR DETAIL

TEST PASS/FAIL CRITERIA

THE RESISTANCE-TO-GROUND OF THE MARGS FACILITY EARTH ELECTRODE SUBSYSTEM SHALL BE LESS THAN 10 OHMS.

TEST PROCEDURE

THIS TEST SHALL BE EXECUTED USING THE "FALL-OF-POTENTIAL" METHOD, AS ILLUSTRATED IN THE GROUND TEST DETAIL ON THIS SHEET. THE "SIMPLIFIED FALL OF POTENTIAL METHOD" WHICH USES THE AVERAGE OF THREE RESISTANCE READINGS IS NOT ACCEPTABLE.

1. PROBE C SHALL BE PLACED AT A DISTANCE OF D FEET FROM THE GROUND POINT UNDER TEST.
2. REFERENCE PROBE P SHALL BE DRIVEN IN AT A NUMBER OF POINTS ROUGHLY ON A STRAIGHT LINE BETWEEN THE GROUND POINT UNDER TEST AND PROBE C.
3. RESISTANCE READINGS SHALL BE LOGGED AT EACH LOCATION OF PROBE P AT A DISTANCE X FROM THE GROUND POINT UNDER TEST. A KNOWN CURRENT SHALL BE INJECTED BETWEEN THE GROUND POINT UNDER TEST AND THE CURRENT PROBE C, LOCATED AT THE FIXED DISTANCE D. RESISTANCE READINGS SHALL BE TAKEN AT EACH LOCATION OF PROBE P AT DISTANCE X AND THE GROUND POINT UNDER TEST. THEY ARE THEN MEASURED, FROM WHICH THE RESISTANCE AT PROBE P IS COMPUTED.
4. SUFFICIENT PROBE P RESISTANCE READINGS SHALL BE TAKEN TO CONSTRUCT A RESISTANCE CURVE. THE RANGE OF PROBE P RESISTANCE VALUES SHOULD BE APPROXIMATELY 20 TO 30 PERCENT OF THE TRUE RESISTANCE-TO-GROUND OF THE GROUND POINT UNDER TEST OCCURS AT A DISTANCE $X = 0.62D$. THE VALUE OF RESISTANCE IN THIS REGION OF THE RESISTANCE-VERSUS-DISTANCE CURVE SHOULD BE RELATIVELY CONSTANT (RELATIVE, APPROXIMATELY ZERO SLOPE), INDICATING THAT THE RESULTS ARE BEING REPEATED USING A LARGER VALUE.
5. D SHALL BE AT LEAST 5 TIMES THE DIAGONAL DISTANCE OF THE COMPOUND FENCE OR 5 TIMES THE DIAGONAL DISTANCE OF THE EXTERNAL GROUND RING, WHICHEVER IS GREATER. THIS WILL INSURE THAT THE GROUND POINT UNDER TEST IS NOT NEAR A POWER LINE OR OTHER BURIED METAL SUCH AS WATER PIPES OR POWER LINES.
6. UNIFORM TEST WITH THE GROUND RODS CONNECTED WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN DAYS.
7. THE PORTABLE TEST EQUIPMENT REQUIRED TO PERFORM THE GROUND RESISTANCE MEASUREMENTS CONSISTS OF A "MCCOPEY" TYPE OF INSTRUMENT, WHICH CONTAINS THE VOLTAGE SOURCE AND THE CURRENT SOURCE AND CURRENT MEASUREMENT RANGE AND WHICH IS CALIBRATED TO PROVIDE ACCURATE READINGS OF THE RESISTANCE-VERSUS-DISTANCE CURVE. THE INSTRUMENT SHOULD BE 12 INCHES IN LENGTH AND THE PROVISIONS FOR DRIVING THEM SUFFICIENT INSULATED WIRE (E.G. 16 AWG) SHALL ALSO BE AVAILABLE TO EXTEND OUT TO THE REQUIRED DISTANCE FROM THE ELECTRODE UNDER TEST.

GROUND TEST DETAIL

N.T.S.

