

COLUMBIA COUNTY, FLORIDA

REQUEST FOR PROPOSALS
RFP-2014-M

MODIFICATIONS AND CONSTRUCTION OF
COMMUNICATIONS TOWER
AT CUMORAH HILL

The County is seeking proposals from qualified firms for the modification of an existing communications tower at Cumorah Hill and an alternate proposal for the construction of a replacement communications tower at the same site. Additional information about this project can be downloaded from the County's Web site at <http://www.columbiacountyfla.com/PurchasingBids.asp>

The County will receive sealed proposals until 11:00 A. M. (local), December 3, 2014, in the County Managers Office, 135 N.E. Hernando Avenue, Florida, 32055. E-mailed or faxed proposals will not be acceptable.

Columbia County Board of
County Commissioners

Ronald Williams, Chair

**COLUMBIA COUNTY, FLORIDA
REQUEST FOR PROPOSALS
RFP-2014-M**

Cumorah Hill Communications Tower

**RFP OPENING: December 3, 2014, 11:00 A.M.
PURCHASING OFFICE
135 N.E. HERNANDO AVENUE
LAKE CITY, FLORIDA 32055**

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Introduction

Columbia County, situated in north central of Florida where Interstate 10 and 75 intersect, covers an area of approximately 800 square miles. The County currently has seven communications towers. The County operates an older, 315 foot guyed tower at Cumorah Hill near the town of Ft. White. Columbia County has plans to upgrade their radio and microwave systems. Tower Engineering Professionals (TEP) has evaluated the Cumorah Hill tower and has provided structural design drawings for the modification of the tower. RCC, Inc has prepared specifications for the construction of a replacement tower. Columbia County seeks a proposal to 1) complete the modifications in the TEP drawings and/or 2) provide an alternate proposal for the construction of a new tower to replace the existing tower at the site using RCC specifications. Based upon the proposals, Columbia County will decide either to modify the existing tower or to replace the tower. The tower modification and/or construction of a replacement tower will need to be able to support existing communication equipment as well as future needs to include 800MHz. and/or cellular equipment. The scope of services consists of modifying an existing tower and/or erecting a tower in compliance with FAA Circulars. 47 CFR §§ 17.21-17.58.

Note: The County will appoint its own Project Manager.

1. Tower Modification

Specifications for the modification of the existing tower are included in document titled **APPENDIX D: STRUCTURAL DESIGN DRAWINGS** by Tower Engineering Professionals

2. Tower Construction (Alternate Proposal)

- 1) Tower design should be in accordance with EIA/TIA-222 Rev G standard
- 2) The tower should be constructed in an AISC (*American Institute of Steel Construction*) certified facility
- 3) Tower sections should be solid rod construction
- 4) Components and sections should be hot dipped galvanized
- 5) The tower lighting should be FAA Code E-1/2 Dual LED Light Kit with LED Red and White strobes and LED side marker lights
- 6) Tower must comply with the Florida Building Code for a Risk Category III.
- 7) In addition to below, the tower should have loading capacity for an additional 25%

Antenna loading is as follows:

Ft. AGL Proposed/ Mount & Transmission (Base)	Antenna Type and Quantity	Proposed/Future	Mount & Location	Transmission Lines and Quality
300	(1) BMR12-B	PROPOSED	6' - SIDE MOUNT	(1) 7/8"
297	(1) TTA	PROPOSED	6' - SIDE MOUNT	(1) 1/2"
250	(2) BMR10-B	PROPOSED	6' - SIDE MOUNT	(2) 1-1/4"
235 CL	Andrew PAR6-59W w/ Radome	PROPOSED	LEG, XXX DEG	(1) EU63
225	(3) BCD80010	FUTURE	6' - SIDE MOUNT	(3) 1-1/4"
205	(2) DB420	FUTURE	6' - SIDE MOUNT	(2) 7/8"
210	(2) DB224	FUTURE	6' - SIDE MOUNT	(1) 7/8"
200 CL	Andrew PAR4-59W w/ Radome	PROPOSED	LEG, XXX DEG.	(1) EU63
200 CL	150 FPE, 2.0 kips Weight	FUTURE	(3) 12' Sector	(12) 1-5/8"
153 CL	Andrew PAR6-59W w/ Radome	PROPOSED	LEG, XXX DEG.	(1) EU63
170 CL	150 FPE, 2.0 kips Weight	FUTURE	(3) 12' Sector	(12) 1-5/8"
154 CL	Andrew PAR6-59W w/ Radome	PROPOSED	LEG, XXX DEG.	(1) EU63
121 CL	Andrew PAR4-59W w/ Radome	PROPOSED	LEG, XXX DEG.	(1) EU63

3. Management & Personnel

- 1) Profile of the Firm – State whether your firm is local, national, or international. Also include the following for the office this work would originate from:
 - a. Age and size of the Firm and local office.
 - b. Location of the office, where the work on this engagement is to be performed.

- 2) Identify the supervisory and management staff who will be assigned to the engagement and indicate whether each holds and licenses applicable to the proposed project. Provide any substantiated complaints against the firm in the last 3 years and any outstanding litigation.
- 3) Contractor will provide at least five (5) client references for which you have provided similar services and examples (if allowed), along with contact information.
- 4) ADA Compliance And Drug Free Workplace - Contractor will be required to comply with all applicable requirements of the Americans with Disabilities Act at all times. Contractor will also be required to provide certification of a Drug Free Workplace Program.
- 5) Silence Of Specifications - The apparent silence of the foregoing specifications as to any detail, or omission from it as a detailed description, concerning any specifics shall be regarded as meaning that only the best commercial practices are to prevail and that only equipment and workmanship of first quality are to be used. All interpretations of these specifications shall be made upon the basis of this statement.

4. Required Submittal

Submission/Format Requirements

Submit one (1) original unbound and five (5) bound copies of the proposal. All copies will be on 8 1/2" x 11" plain white paper, typed, and signed by an authorized representative who is able to contractually bind the Proposer. In addition, interested parties must submit one (1) original copy of the Proposal on a CD-ROM (or electronic media approved by the County) in printable Adobe or Microsoft Word format (or other format approved by the County). Failure to adhere to the submittal quantity criteria may result in the Proposal being considered non-responsive.

Information to be included in the proposal: In order to maintain comparability and expedite the review process, it is required that proposals be organized in the manner specified below:

Title page:

Show the project name and number, the name of the Proposer's firm, address, telephone number, name of contact person and the date.

Table of Contents:

Include a clear identification of the material by section and by page.

Letter of Transmittal:

Briefly state the Proposer's understanding of the project and express a positive commitment to provide the services described herein. State the name(s) of the person(s) who will be authorized to make representations for the proposer, their title(s), office and E-mail addresses and telephone numbers. Please limit this section to two pages.

All other information requested herein:

Respond to all areas in sections titled "Fee & Costs", "Management & Personnel".

County Forms:

The RFP Proposal Signature Page must be completed, signed and returned. Return all RFP pages, initialed where indicated.

5. Hold Harmless and Indemnification

Proposer covenants and agrees that it will indemnify and hold harmless the County and the County's provider, if applicable, and all of their officers, agents, and employees from any claim, loss, damage, cost, charge or expense arising out of any negligent act, action, or omission by the Proposer, whether direct or indirect, or whether to any person or property to which the County or said parties may be subject, except that neither the Proposer nor any of its subcontractors will be liable under this section for damages arising out of injury or damage to persons or property directly caused by or resulting from the sole negligence of the County or the County's contracted provider, if applicable, or any of their officers, agents or employees.

6. Insurance

The insurance described herein reflects the insurance requirements deemed necessary for this contract by the County. It is not necessary to have this level of insurance in effect at the time of submittal, but certificates indicating that the insurance is currently carried or a letter from the Carrier indicating upgrade ability will speed the review process to determine the most qualified Proposer.

The successful Proposer(s) shall not commence operations until certification or proof of insurance, detailing terms and provisions of coverage, has been received and approved by the Columbia County Risk Manager.

The following insurance coverage shall be required.

- a. Worker's Compensation Insurance covering all employees and providing benefits as required by Florida Statute, Chapter 440, regardless of the size of the company (number of employees). The Contractor further agrees to be responsible for employment, control and conduct of its employees and for any injury sustained by such employees in the course of their employment.

b. Liability Insurance

- 1) Naming Columbia County as an additional insured, on General Liability Insurance only, in connection with work being done under this contract.
- 2) Such Liability insurance shall include the following checked types of insurance and indicated minimum policy limits.

LIMITS OF LIABILITY

Type of Insurance	each occurrence	aggregate
GENERAL LIABILITY	MINIMUM \$200,000 per OCCURRENCE/\$300,000 AGGREGATE	
* Policy to be written on a claims incurred basis		
XX comprehensive form		
XX premises - operations	bodily injury	
— explosion & collapse hazard	property damage	
— underground hazard		
— products/completed operations hazard	bodily injury and property damage combined	
XX contractual insurance		
XX broad form property damage		
XX independent contractors		
XX personal injury	personal injury	

AUTOMOBILE LIABILITY	MINIMUM \$200,000 per OCCURRENCE/\$300,000 AGGREGATE	
	bodily injury (each person)	
	bodily injury each accident	
XX comprehensive form	property damage	
XX owned		
XX hired	bodily injury and property damage combined	
XX non-owned		

REAL & PERSONAL PROPERTY		
— comprehensive form	Consultant must show proof they have this coverage.	

EXCESS LIABILITY		
— umbrella form	bodily injury and property damage combined	
— other than umbrella		
		\$2,000,000. \$2,000,000.

XX PROFESSIONAL LIABILITY	\$1,000,000.	\$1,000,000.
* Policy to be written on a claims made basis		

The certification or proof of insurance must contain a provision for notification to the County, and the County's contracted law enforcement provider if applicable, thirty (30) days in advance of any material change in coverage or cancellation.

The successful Proposer shall furnish to the County the certification or proof of insurance required by the provisions set forth above, within ten (10) days after notification of award of contract.

7. Retention of Records and Right to Access

The selected firm shall maintain during the term of the contract all books of account, receipt invoices, reports and records in accordance with generally accepted accounting practices and standards. The form of all records and reports shall be subject to the approval of the County's Internal Auditor. Recommendation for changes, additions, or deletions by the County's Internal Auditor must be complied with by the selected firm. The County's Internal Auditor must be permitted during normal business hours to audit and examine the books of account, reports, and records relating to this contract. The selected firm shall maintain and make available such records and files for the duration of the contract and retain them until the expiration of three years after final payment under the contract.

8. Communications

No negotiations, decisions, or actions shall be initiated or executed by the firm as a result of any discussions with any County employee. Only those communications, which are in writing from the County, may be considered as a duly authorized expression on behalf of the County. In addition, only communications from firms that are signed and in writing will be recognized by the County as duly authorized expressions on behalf of firms.

9. No Discrimination

There shall be no discrimination as to race, sex, color, creed, or national origin in the operations conducted under this contract.

10. Independent Contractor

The selected firm will conduct business as an independent contractor under the terms of this contract. Personnel services provided by the firm shall be by employees of the firm and subject to supervision by the firm, and not as officers, employees, or agents of the County. Personnel policies, tax responsibilities, social security and health insurance, employee benefits, purchasing policies and other similar administrative procedures applicable to services rendered under this agreement shall be those of the firm.

11. Staff Assignment

Columbia County reserves the right to approve or reject, for any reasons, Proposer's staff assigned to this project at any time. Background checks may be required.

12. Contract Terms

The contract shall include, but not be limited to the following terms:

The contract shall include as a minimum, the entirety of this RFP document, together with the successful Proposer's proposal. Contract shall be prepared by the Columbia County Attorney.

If the County defends any claim, demand, cause of action, or lawsuit arising out of any act, action, negligent acts or negligent omissions, or willful misconduct of the contractor, its employees, agents or servants during the performance of the contract, whether directly or indirectly, contractor agrees to reimburse the County for all expenses, attorney's fees, and court costs incurred in defending such claim, cause of action or lawsuit.

13. Waiver

It is agreed that no waiver or modification of this contract or of any covenant, condition or limitation contained in it shall be valid unless it is in writing and duly executed by the party to be charged with it, and that no evidence of any waiver or modification shall be offered or received in evidence in any proceeding, arbitration, or litigation between the parties arising out of or affecting this contract, or the right or obligations of any party under it, unless such waiver or modification is in writing, duly executed as above. The parties agree that the provisions of this paragraph may not be waived except by a duly executed writing.

14. Survivorship Rights

This contract shall be binding on and inure to the benefit of the respective parties and their executors, administrators, heirs, personal representative, successors and assigns.

15. Termination

The contract may be terminated by the County without cause upon providing contractor with a least sixty (60) days prior written notice.

Should either party fail to perform any of its obligations under this contract for a period of thirty (30) days after receipt of written notice of such failure, the non-defaulting part will have the right to terminate the contract immediately upon delivery of written notice to the defaulting part of its election to do so. The foregoing rights of termination are in addition to any other rights and remedies that such party may have.

16. Manner of Performance

Proposer agrees to perform its duties and obligations under this contract in a professional manner and in accordance with all applicable local, federal and state laws, rules and regulations.

Proposer agrees that the services provided under this contract shall be provided by employees that are educated, trained and experienced, certified and licensed in all areas encompassed within their designated duties. Proposer agrees to furnish the County with all documentation, certification, authorization, license, permit, or registration currently required by applicable laws or rules and regulations. Proposer further certifies that it and its employees are now in and will maintain good standing with such governmental agencies and that it and its employees will keep all license, permits, registration, authorization or certification required by applicable laws or regulations in full force and effect during the term of this contract. Failure of proposer to comply with this paragraph shall constitute a material breach of contract.

17. Questions and Communication

All questions regarding the RFP are to be submitted in writing to the Purchasing Office, 135 N.E. Hernando Avenue, Lake City, Florida 32055 or by emailing Ray_Hill@colubiacountyfla.com. All questions must include the inquiring firm's name, address, telephone number and RFP name and number. Questions must be received at least seven (7) calendar days before the scheduled RFP opening. Oral and other interpretations or clarifications will be without legal effect. Questions and answers will be distributed to all firms known to have obtained the solicitation document from the County.

18. Addenda

The issuance of a written addendum is the only official method whereby interpretation, clarification, or additional information can be given. If any addenda are issued to this Bid solicitation the County will attempt to notify all known prospective Proposers, however, it shall be the responsibility of each Proposer, prior to submitting their response, to review the County web site to determine if addenda were issued and to make such addenda a part of their proposal.

19. Acceptance Period

Proposals submitted in response to this RFP must be valid for a period no less than ninety (90) days from the closing date of this solicitation.

20. RFP Conditions and Provisions

The completed and signed proposal (together with all required attachments) must be returned to County on or before the time and date stated herein. All proposers, by submission of a proposal, shall agree to comply with all of the conditions, requirements and instructions of this RFP as stated or implied herein. All proposals and supporting materials submitted will become the property of the County.

Any alteration, erasure, or interlineations by the proposer in this RFP shall constitute cause for rejection. Exceptions or deviations to this proposal may not be added after the submittal date.

All proposers are required to provide all information requested in this RFP. Failure to do so may result in disqualification of the proposal.

The County reserves the right to postpone or cancel this RFP, or reject all proposals, if in its sole discretion it deems it to be in the best interest of the County to do so.

The County reserves the right to waive any technical or formal errors or omissions and to reject all proposals, or to award contract for the items herein, in part or whole, if it is determined to be in the best interests of the County to do so.

The County shall not be liable for any costs incurred by the proposer in the preparation of proposals or for any work performed in connection therein.

21. Selection/Evaluation Process

A Selection/Evaluation Committee will be appointed to select the most qualified firm(s). The Selection/Evaluation Committee will present their findings to the Board of County Commissioners and, upon Board approval, will negotiate a contract with the most qualified firm(s).

Proposals will be evaluated using the following criteria.

	<u>Criteria</u>	<u>Point Range</u>
1.	Experience and Expertise <ul style="list-style-type: none">• Previous related work experience and qualifications in the subject area of personnel assigned.• Demonstrates a clear understanding of scope of work and other technical or legal issues related to the project.	0-30
2.	References <ul style="list-style-type: none">• History and performance of firm/project team on <i>similar projects</i>.• References and recommendations from previous clients.	0-30
3.	Resources and Methodology <ul style="list-style-type: none">• Adequacy of amount of quality resources assigned to the project.• Overall approach to project. Consideration of services provided and approach to meeting goals and deadlines.• Financial resources.	0-40
	Total	0-100

The Committee has the option to use the above criteria for the initial ranking to short-list proposers and to use an ordinal ranking system to score short-listed proposers following presentations (if deemed necessary) with a score of “1” assigned to the short-listed proposer deemed most qualified by the Committee.

Each firm should submit documentation that evidences the firm’s capability to provide the services required for the Committee’s review for short listing purposes. After an initial review of the Proposals, the County may invite proposers for an interview to discuss the proposal and meet firm representatives, particularly key personnel who would be assigned to the project. Should interviews be deemed necessary, it is understood that the County shall incur no costs as a result of this interview, nor bear any obligation in further consideration of the submittal.

When more than three responses are received, the committee shall furnish the Board of County Commissioners (for their approval) a listing, in ranked order, of no fewer than three firms deemed to be the most highly qualified to perform the service. If three or less firms respond to the RFP, the list will contain the ranking of all responses.

The Board of County Commissioners has the authority to (including, but not limited to); approve the recommendation; reject the recommendation and direct staff to re-advertise the solicitation; or, review the responses themselves and/or request oral presentations and determine a ranking order that may be the same or different from what was originally presented to the Board of County Commissioners.

22. Standard Provisions

a. Governing Law

Interested vendors will agree that agreements shall be governed by the laws of the State of Florida, and the venue for any legal action will be in Columbia County, Florida.

b. Conflict Of Interest

For purposes of determining any possible conflict of interest, each Proposer must disclose if any County employee is also an owner, corporate officer, or an employee of the firm. If any County employee is an owner, corporate officer, or an employee, the Proposer must file a statement with the Columbia County Supervisor of Elections pursuant to § 112.313, Florida Statutes.

c. Drug Free Workplace

The selected firm(s) will be required to verify they will operate a “Drug Free Workplace” as set forth in Florida Statute, 287.087.

d. Public Entity Crimes

A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute, Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

e. Patent Fees, Royalties, And Licenses

If the selected Proposer requires or desires to use any design, trademark, device, material or process covered by letters of patent or copyright, the selected Proposer and his surety shall indemnify and hold harmless the County from any and all claims for infringement by reason of the use of any such patented design, device, trademark, copyright, material or process in connection with the work agreed to be performed and shall indemnify the County from any cost, expense, royalty or damage which the County may be obligated to pay by reason of any infringement at any time during or after completion of the work.

f. Permits

The selected Proposer shall be responsible for obtaining all permits, licenses, certifications, etc., required by federal, state, county, and municipal laws, regulations, codes, and ordinances for the performance of the work required in these specifications and to conform to the requirements of said legislation.

g. Familiarity With Laws

It is assumed the selected firm(s) will be familiar with all federal, state and local laws, ordinances, rules and regulations that may affect its services pursuant to this RFP. Ignorance on the part of the firm will in no way relieve the firm from responsibility.

h. Withdrawal Of Proposals

A firm may withdraw its proposal without prejudice no later than the advertised deadline for submission of proposals by written communication to the General Services Department, 135 N.E. Hernando Avenue, Lake City, Florida 32055.

i. Composition Of Project Team

Firms are required to commit that the principals and personnel named in the proposal will perform the services throughout the contractual term unless otherwise provided for by way of a negotiated contract or written amendment to same executed by both parties. No diversion or substitution of principals or personnel will be allowed unless a written request that sets forth the qualifications and experience of the proposed replacement(s) is submitted to and approved by the County in writing.

j. Variances

While the County allows Contractors to take variances to the RFP terms, conditions, and specifications, the material nature, number, and extent of variances taken will be considered in determining proposal responsiveness and in allocating proposal evaluation points.

k. Invoicing/Payment

All invoices should be sent to Columbia County, Accounts Payable, 135 N.E. Hernando Avenue, Lake City, Florida, 32055. In accordance with Florida Statutes, Chapter 218, payment will be made within 45 days after receipt of a proper invoice.

PROPOSAL SIGNATURE PAGE
RFP 2014-M, Cumorah Hill Communications Tower
Design/Build Project Management

To: Columbia County, Florida

The below signed hereby agrees to furnish the proposed services under the terms stated subject to all instructions, terms, conditions, specifications, addenda, legal advertisement, and conditions contained in the RFP. I have read the RFP and all attachments, including the specifications, and fully understand what is required. By submitting this signed proposal, I will accept a contract if approved by the County and such acceptance covers all terms, conditions, and specifications of this proposal.

Proposal submitted by:

Name (printed) _____ Title _____

Company (Legal Registered) _____

Federal Tax Identification Number _____

Address _____

City/State/Zip _____

Telephone No. _____ Fax No. _____

Signature _____ Date _____

Addendum Acknowledgment - Proposer acknowledges that the following addenda have been received and are included in his/her proposal:

Addendum No. _____ Date Issued _____

Variances: State any variations to specifications, terms and conditions in the space provided below or reference in the space provided below all variances contained on other pages of RFP, attachments, or proposal pages. No variations or exceptions by the Proposer will be deemed to be part of the proposal submitted unless such variation or exception is listed and contained within the proposal documents and referenced in the space provided below. If no statement is contained in the below space, it is hereby implied that your proposal complies with the full scope of this RFP.

Variances: _____

**Columbia County, Florida
Purchasing Department
General Instructions to Bidders**

These instructions will bind bidders and conditions herein set forth, except as specifically qualified in special bid and contract terms issued with any individual bid.

1. The following criteria are used in determining low responsible bidder:
 - A. The ability, capacity and skill of bidder to perform required service.
 - B. Whether the bidder can perform service promptly or within specified time.
 - C. The character, integrity, reputation, judgment, experience and efficiency of bidder.
 - D. The performance of previous contracts with Columbia County.
 - E. The suitability of equipment or material for county use.
 - F. The ability of bidder to provide future maintenance.
2. Payment Terms are net (30) unless otherwise specified. Favorable terms, discounts, may be offered and will be considered in determining low bids if they are deemed by Purchasing Department to be advantageous to the County.
3. All bids should be tabulated, totaled and checked for accuracy. Unit price will prevail in case of errors.
4. All requested information shall be included in the envelope. All desired information must be included for your bid to receive full consideration.
5. If anything on the bid request is not clear, you should contact the Purchasing Director immediately.
6. A bidders list is available at the Purchasing Office.
7. Quote all prices F.O.B. our warehouse or as specified in bid documents.
8. Each proposal shall be clearly marked on the outside of the envelope including Fed Ex, UPS or other delivery service envelopes, as a sealed bid. The name of the item being bid shall be shown on the outside in full.
9. No responsibility shall attach to any County representative or employee for the premature opening of bids not properly addressed or identified.
10. If only one (1) bid is received, the bid may be rejected and re-advertised or excepted if determined to be in the counties best interest.
11. Bids received late will not be accepted, and the County will not be responsible for late mail delivery.
12. Telephone and facsimile bids will not be acceptable in formal bid openings (sealed bids). Should a bid be misplaced by the County and found later, it will be considered. Any bidder may request and shall receive a receipt showing the day and time any bid is delivered to the appropriate office of the County from the personnel thereof.

13. Bids requiring bid bonds will not be accepted if bond is not enclosed. Cash or certified check will be accepted in lieu of bond except on construction projects where cost exceeds \$40,000.
14. All bidders must be recognized dealers in the materials or equipment specified and is qualified to advise in their application or use. A bidder at any time requested must satisfy the Purchasing Office and the County Manager that he has the requisite organization, capital, plant, stock ability and experience to satisfactorily execute the contract in accordance with the provisions of the contract in which he is interested.
15. Any alterations, erasures, additions, or admissions of required information or any changes to specifications or bidding schedule are done at the risk of the bidder. Any bid will be rejected that has a substantial variation, that is; a variation that affects price, quantity, and quality or delivery date (when delivery is required by a specific time).
16. When requested, samples will be furnished to the County free of expense, properly marked for identification and accompanied by a list where there is more than one (1) sample. The County reserves the right to mutilate or destroy any sample submitted whenever it may be to the best interest of the County to do so for the purpose of testing.
17. The County will reject any material, supplies or equipment that did not meet the specifications, even though the bidder lists the trade names or names of such material on the bid or price quotation form.
18. The unauthorized use of patented articles is done entirely at the risk of the successful bidder.
19. The ESTIMATED QUANTITY given in the specifications or advertisements is for the purpose of bidding only. The County may purchase more or less than the estimated quantity and the vendor must not assume that such estimated quantity is part of the contract.
20. Only the latest model equipment as evidenced by the manufacture's current published literature will be considered. Obsolete models of equipment not in production will not be acceptable. The equipment shall be composed of new parts and materials. Any unit containing used parts or having seen any service other than the necessary tests will be rejected. In addition to the equipment specifically called for in the specification, all equipment catalogued by the manufacturer as standard or required by the State of Florida shall be furnished with the equipment. Where required by the State of Florida Motor Vehicle Code, vehicles shall be inspected and bear the latest inspection sticker of the Florida Department of Revenue.
21. The successful bidder on motor vehicle equipment shall be required to furnish with delivery of vehicle, certificate of origin and any other appropriate documentation as required by the Florida Motor Vehicle Department.
22. Prospective bidders are required to examine the location of the proposed work or delivery and determine, in their own way, the difficulties, which are likely to be encountered in the prosecution of the same.

23. All materials, equipment and supplies shall be subject to rigid inspection, under the immediate supervision of the Purchasing Department, its designee and /or the department to which they are delivered. If defective material, equipment, or supplies are discovered, the contractor, upon being instructed by the Purchasing Department or designee, shall remove, or make good such material, equipment, or supplies without extra compensation. It is expressly understood and agreed that the inspection of materials by the County will in no way lessen the responsibility of the Contractor release him from his obligation to perform and deliver to the County Sound and satisfactory materials, equipment, or supplies. The Contractor agrees to pay the costs of all tests upon defective material, equipment, or supplies or allow the costs to be deducted from any monies due him from the County.
24. Unless otherwise specified by the Purchasing Department all materials, supplies, or equipment quoted herein must be delivered within thirty (30) days from the day of notification or exceptions noted on bid sheets.
25. A contract will not be awarded to any corporation, firm, or individual who is, from any cause, in arrears to the County or who has failed in former contracts with the County to perform work satisfactorily, either to the character of the work, the fulfillment or guarantee, or the time consumed in completing the work.
26. Reasonable grounds for supposing that any bidder is interested in more than one proposal for the same item will be considered sufficient cause for rejection of all proposals in which he is interested.
27. Submitting a proposal when the bidder intends to sublet the contract may be a cause for rejection of bids or cancellation of the contract by the County Manager.
28. Unless otherwise specified the County reserves the right to award each items separately or on a lump sum basis whichever is in the best interest of the County.
29. The County reserves the right to reject any and/or all quotations, to waive any minor discrepancies in the bids for all bidders equally, quotations, or specifications, when deemed to be in the best interest of the County and also to purchase any part, all or none of the materials, supplies, or equipment specified.
30. Failure of the bidder to sign the bid or have the signature of an authorized representative or agent on the bid proposal in the space provided will be cause for rejection of the bid. Signature must be written in ink. Typewritten or printed signatures will not be acceptable.
31. Any bidder may withdraw his bid at any time before the time set for the opening of the bids. No bid may be withdrawn in the thirty- (30) day period after bids are opened.

32. It is mutually understood and agreed that if at any time the Purchasing Department or designee shall be of the opinion that the contract or any part thereof is unnecessarily delayed or that the rate of progress or delivery is unsatisfactory, or that the contractor is willfully violating any of the conditions or covenants of the agreement, or executing the same in bad faith, the Purchasing Department or his designee shall have the power to notify the aforesaid contractor of the nature of the complaint. Notification shall constitute delivery of notice, or letter to address given in the proposal. If after three (3) working days of notification the conditions are not corrected to the satisfaction of the Purchasing Director, he shall thereupon have the power to take whatever action he may deem necessary to complete the work or delivery herein described, or any part thereof, and the expense thereof, so charged, shall be deducted from any paid by the County out of such monies as may become due to the said contractor, under and by virtue of this agreement. In case such expense shall exceed the last said sum, then and in that event, the bondsman or the contractor, his executors, administrators, successors, or assigns, shall pay the amounts of such excess to the County on notice made by the Purchasing Department or his designee of the excess due.
33. If the bidder proposes to furnish any item of foreign make or product, he shall write "foreign" together with the name of the originating country opposite such item on a proposal.
34. Any complaint from bidders relative to the invitation to bid or attached specifications shall be made prior to the time of opening bids; other wise, the bidder waives any such complaint.
35. Contracts may be cancelled by the County with or without cause on thirty- (30) days advance written notice.
36. All contractors submitting bids for road projects in excess of \$150,000 must be pre-qualified with the Florida Department of Transportation and shall provide proof of such qualification upon request.
37. Any bidder affected adversely by an intended decision with respect to the award of any bid, shall file with the Purchasing Department for Columbia County, a written notice of intent to file a protest not later than seventy-two (72) hours (excluding Saturdays, Sundays and legal holidays), after the posting of the bid tabulation. Protest procedures may be obtained in the Purchasing Department.
38. A person or affiliate who has been placed on the convicted vendor's list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to Columbia County, may not submit a bid on a contract with Columbia County for the construction or repair of a public building or public work, may not submit bids on leases of real property to Columbia County, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with Columbia County, and may not transact business with Columbia County for a period of 36 months from the date of being placed on the convicted vendor list.
39. Vendor/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of;
 - A. all persons employed by the Vendor/Contractor during the term of the Contract to perform employment duties within Florida; and
 - B. all persons, including subcontractors, assigned by the Vendor/Contractor to perform work pursuant to the contract with the County.

APPENDIX D
STRUCTURAL DESIGN DRAWINGS

STRUCTURAL DESIGN DRAWINGS

SITE NAME:

CUMORAH HILL

SITE NUMBER:

1049323

SITE ADDRESS:

**1077 SW CUMORAH HILL ST.,
FORT WHITE, FL 32038
(COLUMBIA COUNTY)
N29°57'15.05", W82°39'36.88"**

PLANS PREPARED FOR:

**CENTRAL
COMMUNICATIONS**

263 NW LAKE CITY AVE.,
LAKE CITY, FL 32055
OFFICE: (386) 758-1125

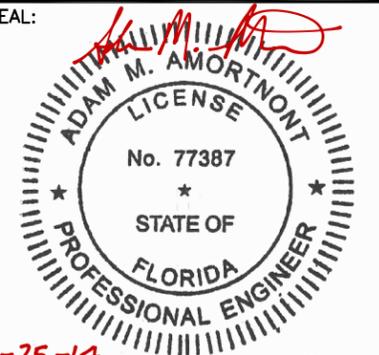
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



7-25-14 July 25, 2014

MODIFICATION PROVISIONS

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL MODIFICATION ANALYSIS REPORT COMPLETED BY TOWER ENGINEERING PROFESSIONALS (TEP), JOB#: 50108.12262 DATED JULY 25, 2014 (REV 0). THIS REPORT IS BASED ON A SPECIFIC ANTENNA LOADING AND COAX CONFIGURATION. SEE THE REPORT FOR THE ANTENNA AND COAX LOADING INFORMATION. ANY OTHER ANTENNA OR COAX CONFIGURATION REQUIRES REVIEW BY TEP. SATISFACTORY COMPLETION OF THE MODIFICATIONS INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING ORDERING MATERIALS, AND CONSTRUCTION.

INDEX OF SHEETS

NO.	SHEET TITLE	REV
T-1	TITLE SHEET	0
N-1	MI CHECKLIST AND NOTES	0
N-2	PROJECT NOTES I	0
N-3	PROJECT NOTES II	0
N-4	FOUNDATION NOTES	0
S-1	TOWER ELEVATION AND MODIFICATION SCHEDULE	0
S-2	INNER ANCHOR FOUNDATION DETAILS	0
S-3	GUY ANCHOR SHAFT DETAILS	0
S-4	TORQUE ARM DETAILS I	0
S-5	TORQUE ARM DETAILS II	0
S-6	GUY LUG DETAILS	0
S-7	GUY WIRE INSTALLATION DETAILS I	0
S-8	GUY WIRE INSTALLATION DETAILS II	0
S-9	GUY ANCHOR GROUNDING DETAILS	0

PROJECT TEAM

PROJECT CONTACT:

NAME CENTRAL COMMUNICATIONS
ADDRESS 263 NW LAKE CITY AVE.,
CITY, STATE, ZIP LAKE CITY, FL 32055
CONTACT LAWRENCE WILSON
PHONE (386) 758-1125
EMAIL LWILSON@COLUMBIACOUNTYFLA.COM

ENGINEER OF RECORD (EOR):

NAME TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS 326 TRYON ROAD
CITY, STATE, ZIP RALEIGH, NC 27603
CONTACT ENGINEERING DEPARTMENT
PHONE (919) 661-6351
EMAIL SDD@TEPGROUP.NET

REV	DATE	ISSUED FOR:
0	07-25-14	MODIFICATION DRAWINGS

DRAWN BY: JTR CHECKED BY: JRM

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: **T-1** REVISION: **0**
TEP #: 50108.12262

MI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
NA	EOR APPROVED SHOP DRAWINGS
X	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
NA	NDE REPORT OF MONOPOLE BASE PLATE
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS: -----	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
X	CONTINUOUS FOUNDATION INSPECTIONS
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS
NA	GROUT COMP. STRENGTH (ASTM C109)
X	POST INSTALLED ANCHOR ROD VERIFICATION
NA	BASE PLATE GROUT VERIFICATION
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
NA	NON-TENSION CONTROLLED BOLT INSPECTION. SEE SHEET N-4 FOR DETAILS.
ADDITIONAL TESTING AND INSPECTIONS: -----	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
NA	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS: -----	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT
 NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI REPORT

MODIFICATION INSPECTION NOTES:

GENERAL

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF TOWER MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

ALL MI'S SHALL BE CONDUCTED BY AN OWNER APPROVED ENGINEERING VENDOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR THE OWNER.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT THE PROJECT CONTACT LISTED ON SHEET T-1.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO THE OWNER.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST.
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS.

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING A MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL TOWER MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CANCELLATION OR DELAYS IN SCHEDULED MI

IF THE GC AND MI INSPECTOR AGREE TO A DATE ON WHICH THE MI WILL BE CONDUCTED, AND EITHER PARTY CANCELS OR DELAYS, THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY COSTS, FEES, LOSS OF DEPOSITS AND/OR OTHER PENALTIES RELATED TO THE CANCELLATION OR DELAY INCURRED BY EITHER PARTY FOR ANY TIME (E.G. TRAVEL AND LODGING, COSTS OF KEEPING EQUIPMENT ON-SITE, ETC.). IF THE OWNER CONTRACTS DIRECTLY FOR A THIRD PARTY MI, EXCEPTIONS MAY BE MADE IN THE EVENT THAT THE DELAY/CANCELLATION IS CAUSED BY WEATHER OR OTHER CONDITIONS THAT MAY COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.
- OR, WITH THE OWNER'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

MI VERIFICATION INSPECTIONS

THE OWNER RESERVES THE RIGHT TO CONDUCT A MI VERIFICATION INSPECTION TO VERIFY THE ACCURACY AND COMPLETENESS OF PREVIOUSLY COMPLETED MI INSPECTION(S) ON TOWER MODIFICATION PROJECTS.

ALL VERIFICATION INSPECTIONS SHALL BE HELD TO THE SAME SPECIFICATIONS AND REQUIREMENTS IN THE CONTRACT DOCUMENTS.

VERIFICATION INSPECTION MAY BE CONDUCTED BY AN INDEPENDENT INSPECTION FIRM AFTER A MODIFICATION PROJECT IS COMPLETED, AS MARKED BY THE DATE OF AN ACCEPTED "PASSING MI" OR "PASS AS NOTED MI" REPORT FOR THE ORIGINAL PROJECT.

REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION:
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION AND TORQUE
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
 - FINAL IN FIELD CONDITION

PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

PLANS PREPARED FOR:

CENTRAL COMMUNICATIONS

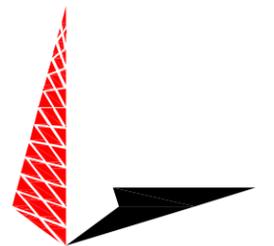
263 NW LAKE CITY AVE.,
LAKE CITY, FL 32055
OFFICE: (386) 758-1125

PROJECT INFORMATION:

CUMORAH HILL SITE #: 1049323

1077 SW CUMORAH HILL ST.,
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



0	07-25-14	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JTR CHECKED BY: JRM

MI CHECKLIST AND NOTES

SHEET NUMBER: N-1	REVISION: 0
TEP #: 50108.12262	

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED CENTRAL COMMUNICATIONS OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF FLORIDA.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2010 FLORIDA BUILDING CODE.
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-08, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
13. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
16. ALL TOWER MODIFICATION WORK SHALL BE IN ACCORDANCE WITH TIA-1019-A STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
17. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.

PLANS PREPARED FOR:

CENTRAL COMMUNICATIONS

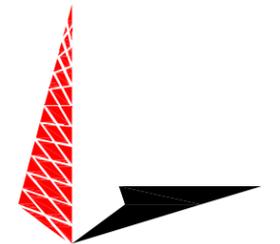
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PROJECT INFORMATION:

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SITE #: 1049323**

1077 SW CUMORAH HILL ST.,
FORT WHITE, FL 32038
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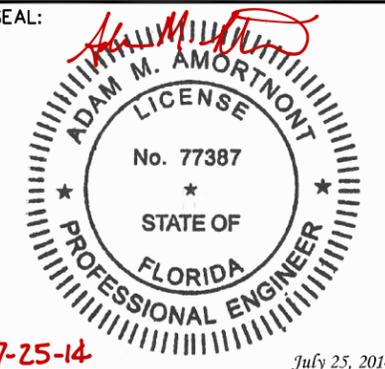
PLANS PREPARED BY:



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326 TRYON ROAD
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OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



0	07-25-14	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JTR CHECKED BY: JRM

SHEET TITLE:

PROJECT NOTES I

SHEET NUMBER: N-2	REVISION: 0
TEP #: 50108.12262	

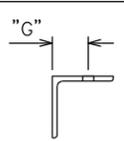
STRUCTURAL STEEL NOTES:

- THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 13TH EDITION.
- UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: STRUCTURAL STEEL:
 - ANGLE: ASTM A36
 - PIPE/TUBE: ASTM A500-46
 - PLATE: ASTM A36 (SELF SUPPORTING AND GUYED TOWERS)
 - PLATE: ASTM A572-65 (MONOPOLE)
 - A. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
 - B. ALL U-BOLTS, ASTM A193 GRADE B7
 - C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
 - D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN, 13TH EDITION.
- HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE ENGINEER.
- HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
- REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
- A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
- GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

WELDING NOTES:

- ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2004 "STRUCTURAL WELDING CODE-STEEL".
- ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
- CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
- GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
- DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS SHALL COMPLY WITH SECTION 3.5.1 AND TABLE 3.2 OF THE AWS D1.1/D1.1M: 2004.
- DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
- FOR ALL WELDING, USE 70 KSI LOW HYDROGEN ELECTRODES. ELECTRODES SHALL BE APPROPRIATE FOR THE WELDING POSITION REQUIRED TO MAKE THE JOINT.
- AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% ± PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.
- FOR MONOPOLE TOWERS FULL PENETRATION WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 100% NDE INSPECTED BY ULTRASONIC TESTING (UT) IN ACCORDANCE WITH AWS D1.1.
- FOR MONOPOLE TOWERS PARTIAL PENETRATION AND FILLET WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 50% NDE INSPECTED BY MAGNETIC PARTICLE (MT) IN ACCORDANCE WITH AWS D1.1.

WORKABLE GAGES						
LEG	4	3½	3	2½	2	1¾
G	2½	2	1¾	1½	1	1


 - WORKABLE GAGES GIVEN IN INCHES
 - MATCH EXISTING WHEN APPLICABLE

BOLT TIGHTENING PROCEDURE:

- TIGHTEN CONNECTION BOLTS BY AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

½"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅝"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
¾"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅞"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA.

½"	BOLTS 2.25 TO 4.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅝"	BOLTS 2.75 TO 5.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
¾"	BOLTS 3.25 TO 6.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅞"	BOLTS 3.75 TO 7.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT

- CONNECTION BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:
- FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-THE-NUT TIGHTENING

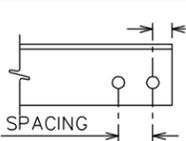
BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

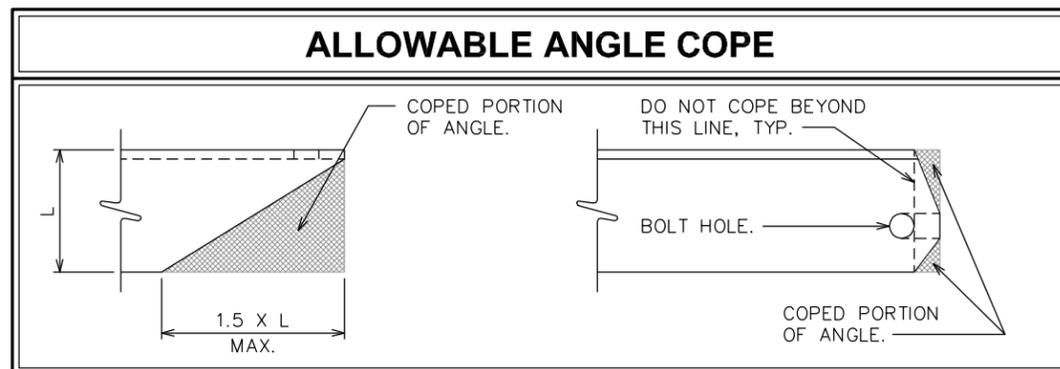
- ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

NOMINAL HOLE DIMENSIONS		
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT
½	⅝	⅝ X 1⅝
⅝	1⅝	1⅝ X ⅞
¾	1¾	1¾ X 1
⅞	1⅞	1⅞ X 1½
1	1⅞	1⅞ X 1⅞

- DIMENSIONS GIVEN IN INCHES

BOLT EDGE AND SPACING		
BOLT DIAMETER	MIN. EDGE	SPACING
½	⅞	1½
⅝	1⅝	1⅞
¾	1¾	2¼
⅞	1½	2⅝
1	1¾	3


 MIN. EDGE - DIMENSIONS GIVEN IN INCHES
 SPACING



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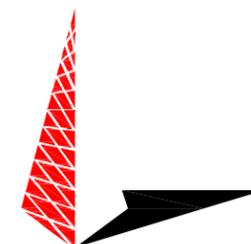
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PROJECT INFORMATION:

CUMORAH HILL SITE #: 1049323

1077 SW CUMORAH HILL ST.,
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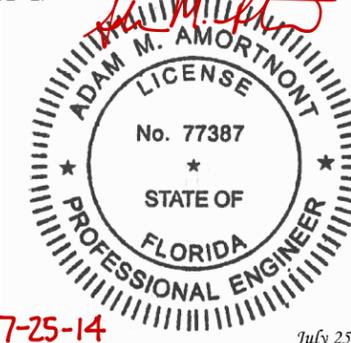
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REV	DATE	ISSUED FOR:
0	07-25-14	MODIFICATION DRAWINGS

DRAWN BY: JTR CHECKED BY: JRM

SHEET TITLE:

PROJECT NOTES II

SHEET NUMBER:

N-3

REVISION:

0

TEP #: 50108.12262

FOUNDATION NOTES:

GENERAL NOTES:

- FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES AND IN A GOOD WORKMANLIKE MANNER.
- CONTRACTOR SHALL VERIFY DIMENSIONS WITH ORIGINAL DRAWINGS.
- FOR FOUNDATION AND ANCHOR TOLERANCES, SEE ORIGINAL DRAWINGS.
- FOUNDATION DESIGN ASSUMES LEVEL GRADE AT THE SITE.
- THE FOUNDATION DESIGN IS IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA PROVIDED.
- FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
- THE FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS, AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS AT THE SITE.
- THE FOUNDATION DESIGN ASSUMES NO CONSTRUCTION JOINTS. HOWEVER, CONSTRUCTION JOINTS SHALL BE PERMITTED UPON APPROVAL BY THE OWNER/ENGINEER.

EXCAVATION:

- WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATIONS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION, AND UTILITIES SHALL BE ESTABLISHED PRIOR TO BEGINNING WORK.
- INTIMATE CONTACT BETWEEN THE CONCRETE AND THE SOIL WALLS OF THE DRILLED SHAFT IS ESSENTIAL. THE CONCRETE SHALL BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.
- THE SIDES OF THE EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
- LOOSE MATERIAL TO BE REMOVED FROM THE BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT.
- DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO THE CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL BE REMOVED AND REPLACED WITH FRESH CONCRETE.

REINFORCING STEEL:

- THE REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60. IT SHALL BE DEFORMED AND SPLICES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED.
- WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
- REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CASING IS UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM FLOWING CONCRETE DURING CASING EXTRACTION.
- SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF TIEBACK REINFORCING TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3" UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3" MINIMUM COVER ON REINFORCEMENT.
- THE CONCRETE COVER FROM THE TOP OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 2".
- THE CONCRETE COVER FROM THE BOTTOM OF THE FOUNDATION TO THE ENDS OF THE VERTICAL REINFORCEMENT SHALL NOT EXCEED 4" NOR BE LESS THAN 3".

CONCRETE:

- WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
- THE CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28-DAYS.
- PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI-318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE.
- CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL, AND OTHER OCCURRENCES THAT MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.

CONCRETE (CONTINUED):

- FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING THE SIDES OF THE EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING, OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
- THE MAXIMUM SIZE OF THE AGGREGATE SHALL NOT EXCEED A SIZE SUITABLE FOR THE INSTALLATION METHOD UTILIZED OR 1/3-CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. THE MAXIMUM SIZE MAY BE INCREASED TO 2/3-CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS AND VOIDS.
- A TEMPORARY PROTECTIVE STEEL CASING WILL BE REQUIRED TO KEEP THE SHAFT OPEN DURING CONSTRUCTION AND INSPECTIONS PRIOR TO PLACING CONCRETE. THIS CASING SHOULD BE EXTRACTED AS THE CONCRETE IS PLACED.

FINISHING:

- THE TOP OF THE FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH.
- THE EXPOSED EDGES OF THE CONCRETE SHALL BE CHAMFERED 1" x 1".

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CENTRAL COMMUNICATIONS

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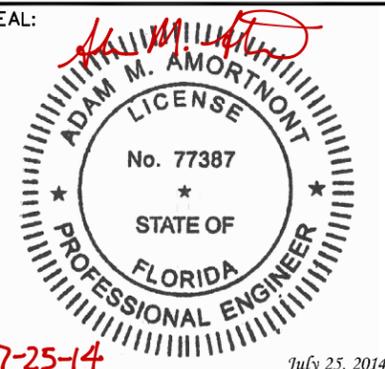
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DRAWN BY: JS CHECKED BY: JRM

SHEET TITLE:

FOUNDATION NOTES

SHEET NUMBER:

N-4

REVISION:

0

TEP #: 50108.12262

NOTE:

ONCE THE FOUNDATION CONCRETE HAS PROPERLY CURED AND ACCEPTABLE CONCRETE STRENGTHS HAVE BEEN REPORTED, THE EXISTING GUY WIRES SHALL BE RE-LOCATED TO THE PROPOSED ANCHOR FAN PLATE. RE-LOCATION OF THE WIRES MAY REQUIRE REPLACING HARDWARE, SPLICING GUY WIRES AND RE-LAYING BIG GRIPS. THE CONTRACTOR SHALL HAVE ALL OF THE NECESSARY TOOLS AND MATERIALS TO COMPLETE THIS PROCESS PRIOR TO ARRIVING TO THE SITE. ALL SPLICES SHALL DEVELOP THE FULL CAPACITY OF THE GUY WIRE.

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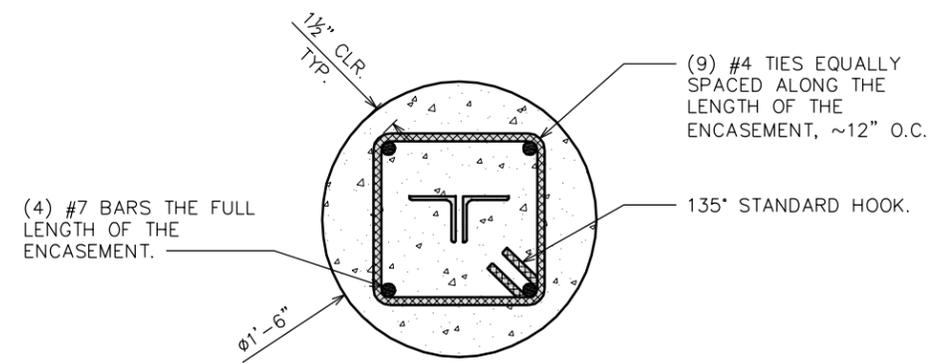
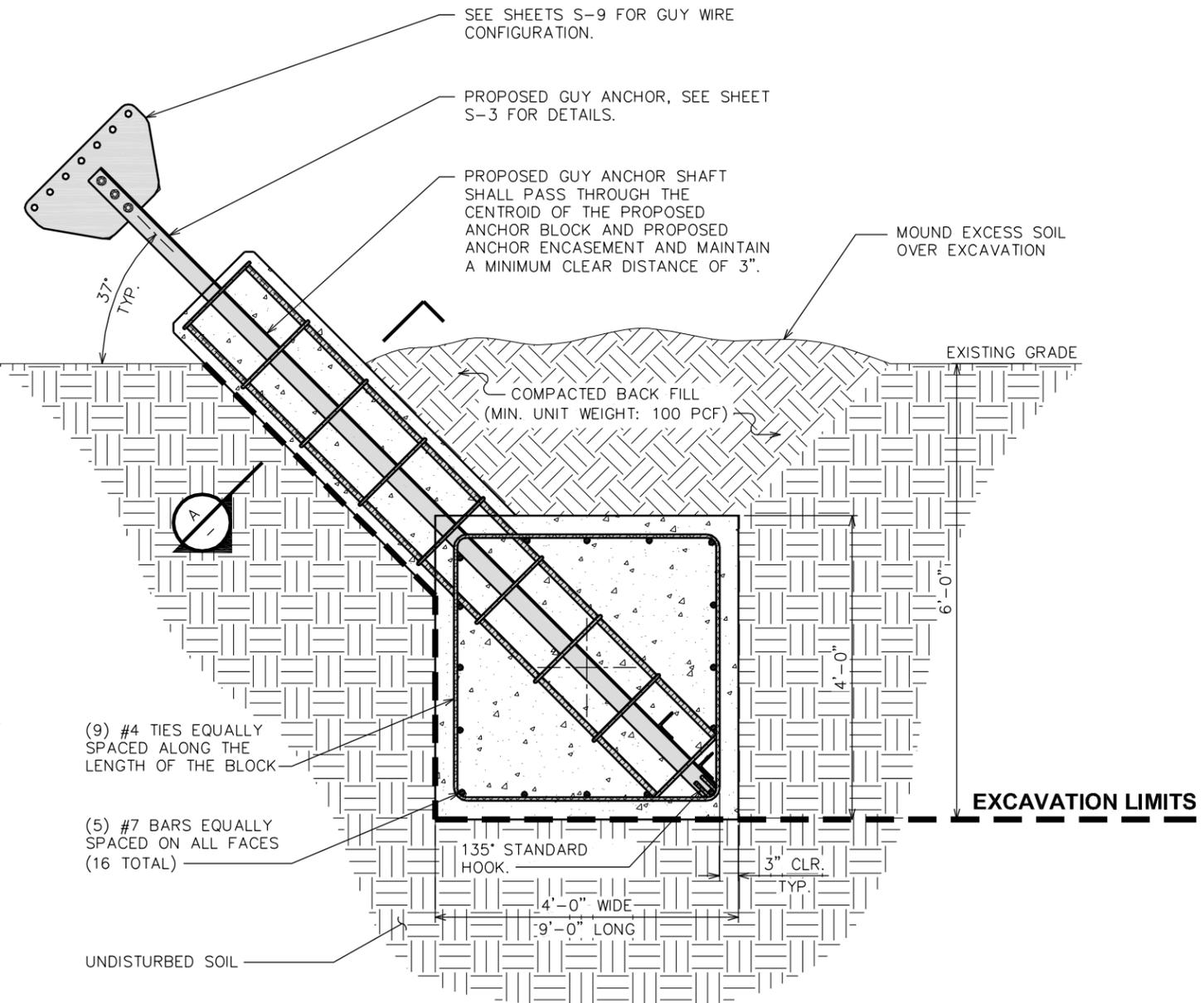
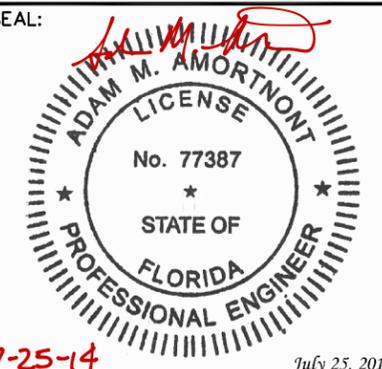
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ANCHOR ROD ENCASEMENT

SCALE: N.T.S.



INNER GUY ANCHOR BLOCK DETAILS

SCALE: 1/2" = 1'-0"

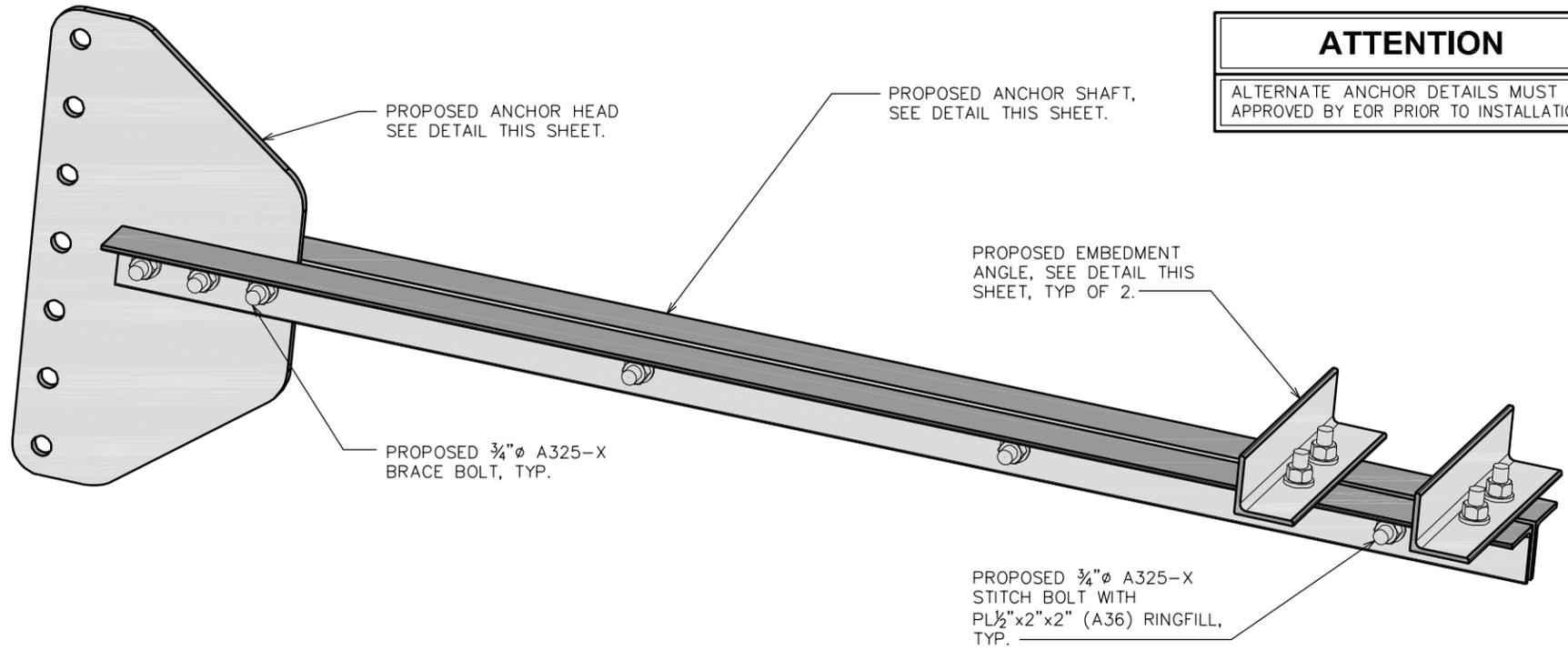


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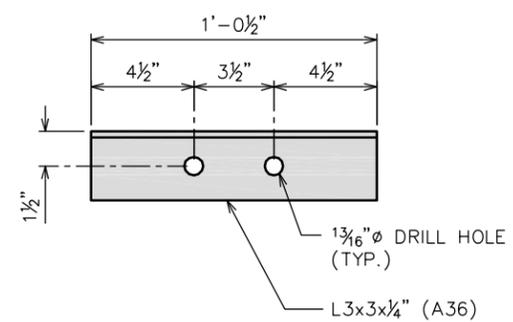
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SHEET TITLE:
**INNER ANCHOR
FOUNDATION
DETAILS**

SHEET NUMBER: **S-2** REVISION: **0**
TEP #: 50108.12262



ATTENTION
ALTERNATE ANCHOR DETAILS MUST BE APPROVED BY EOR PRIOR TO INSTALLATION.



GUY ANCHOR DETAIL

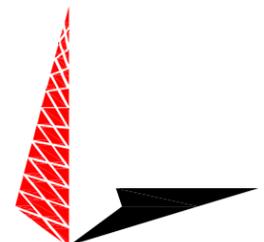
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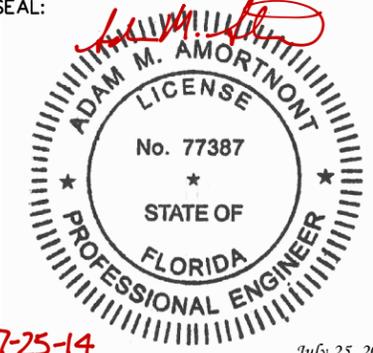
EMBEDMENT ANGLE - QTY. 2

SCALE: 1/2" = 1'-0"

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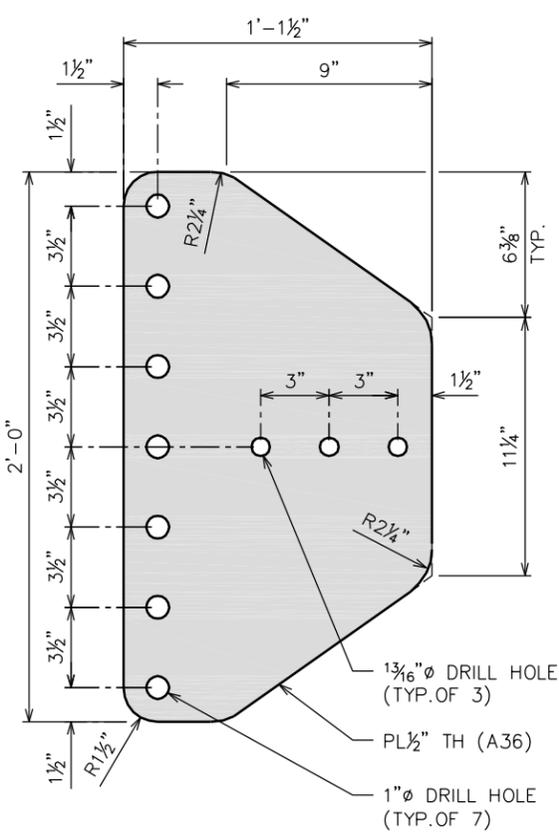
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7-25-14 July 25, 2014

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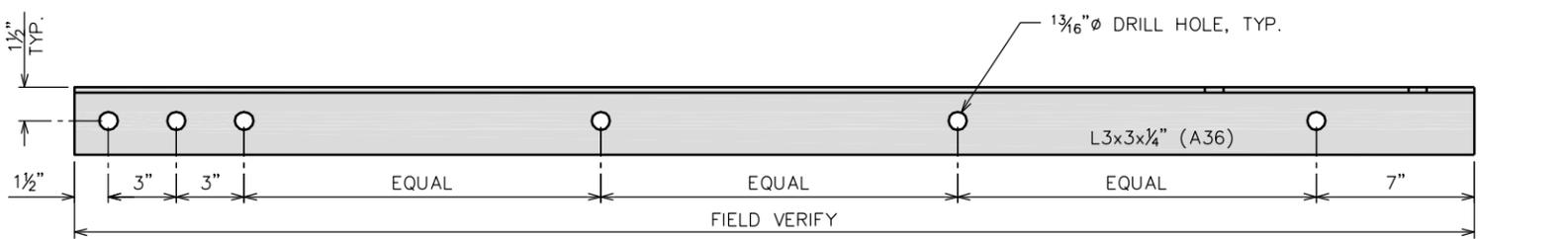
SHEET TITLE:
GUY ANCHOR SHAFT DETAILS

SHEET NUMBER: **S-3** REVISION: **0**
TEP #: 50108.12262

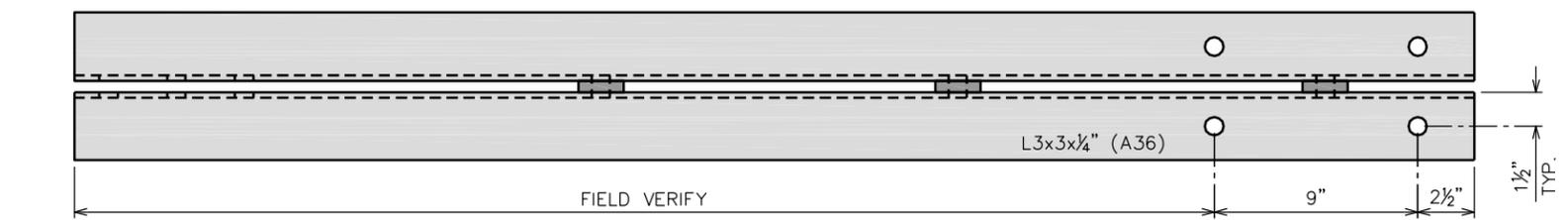


ANCHOR HEAD - QTY. 1

SCALE: 1/2" = 1'-0"



FRONT VIEW



TOP VIEW

ANCHOR SHAFT - QTY. 2

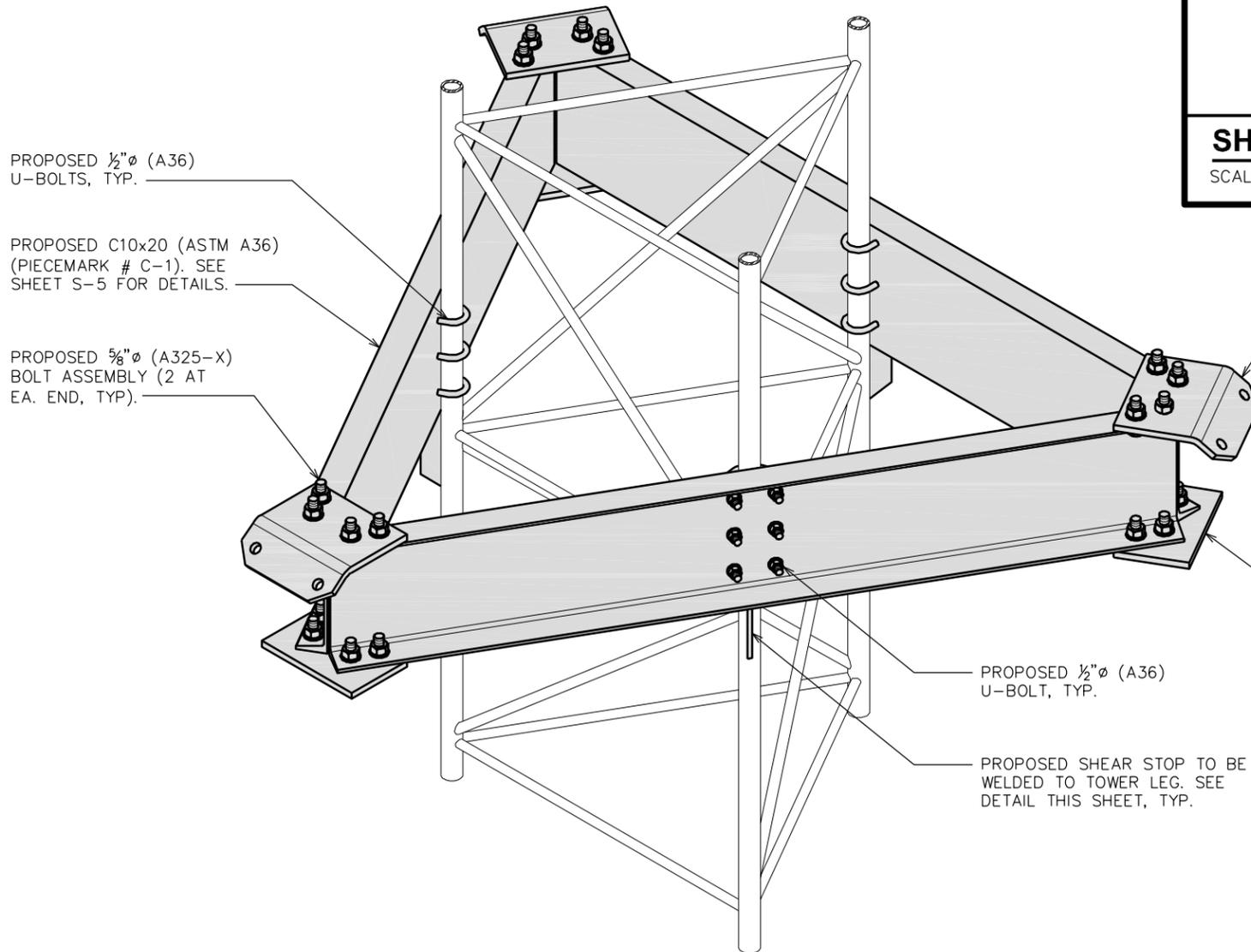
SCALE: 1/2" = 1'-0"



SCALE IN FEET

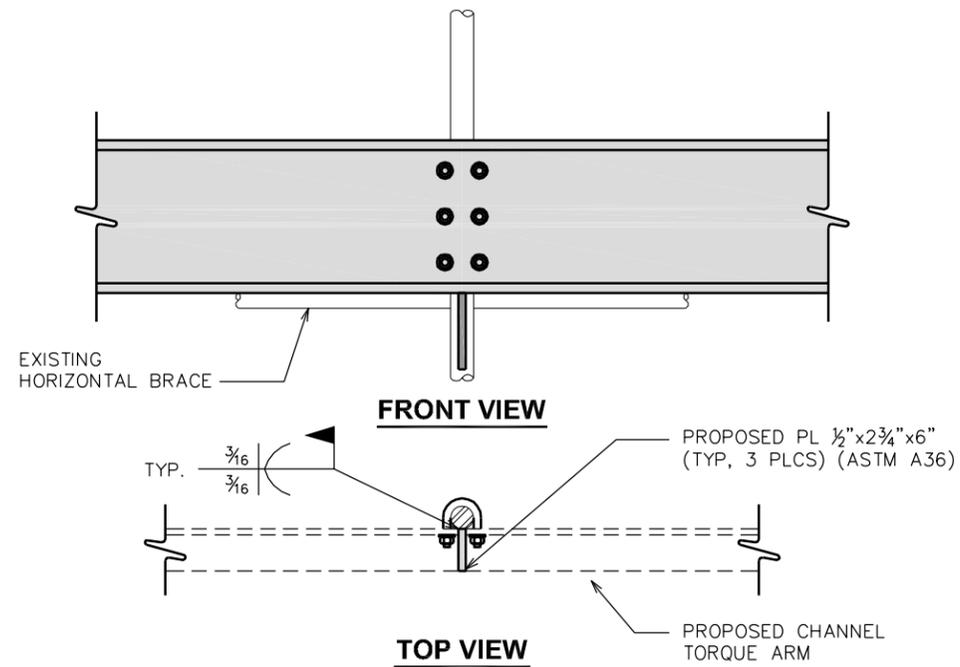
NOTE:

CONTRACTOR TO WELD SHEAR STOP PLATE TO OUTSIDE OF EXISTING TOWER LEG.



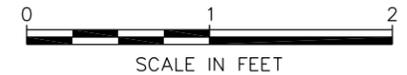
TORQUE ARM DETAIL

SCALE: 3/4" = 1'-0"



SHEAR STOP DETAIL

SCALE: 1" = 1'-0"



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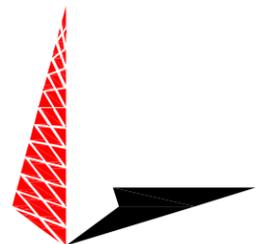
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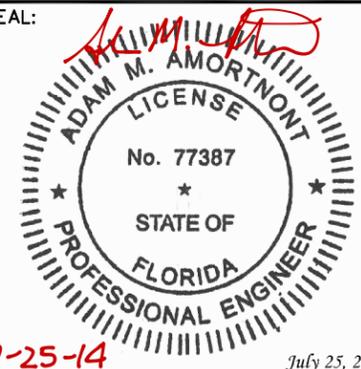
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SHEET TITLE:

**TORQUE ARM
DETAILS I**

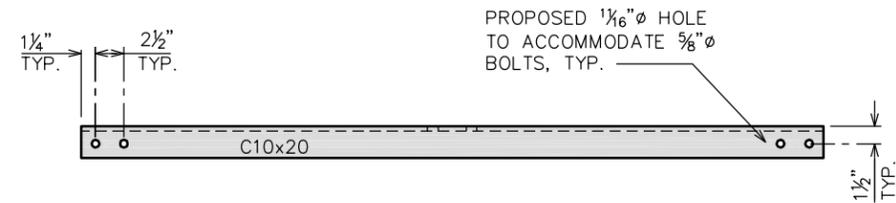
SHEET NUMBER: REVISION:

S-4

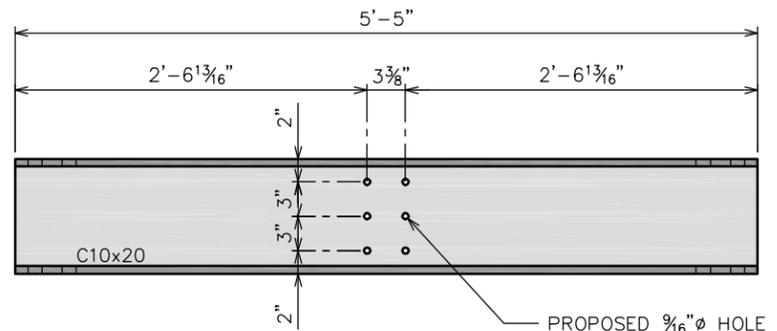
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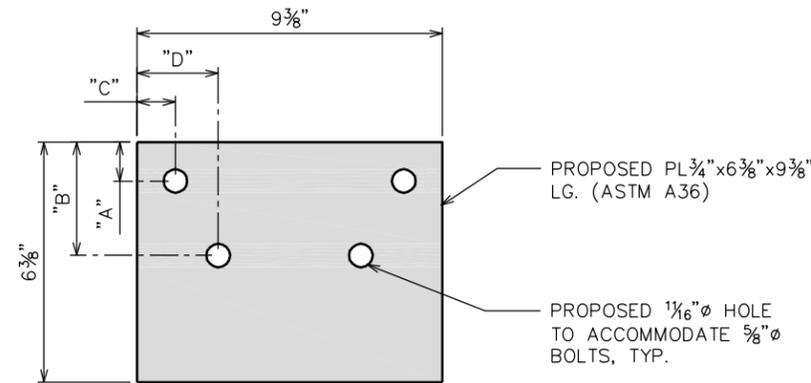
TOP VIEW



FRONT VIEW

DIMENSIONS

GUY LEVEL.	ELEVATION	LEG SIZE	"A" DIM.	"B" DIM.	"C" DIM.	"D" DIM.
3	140'	2 1/2" Ø STD. (2.875" O.D.)	1 1/4"	3 3/16"	1 1/2"	2 3/4"
6	260'	2 1/2" Ø STD. (2.875" O.D.)	1 1/4"	3 3/16"	1 1/2"	2 3/4"



PIECEMARK # C-1

SCALE: 3/4" = 1'-0"



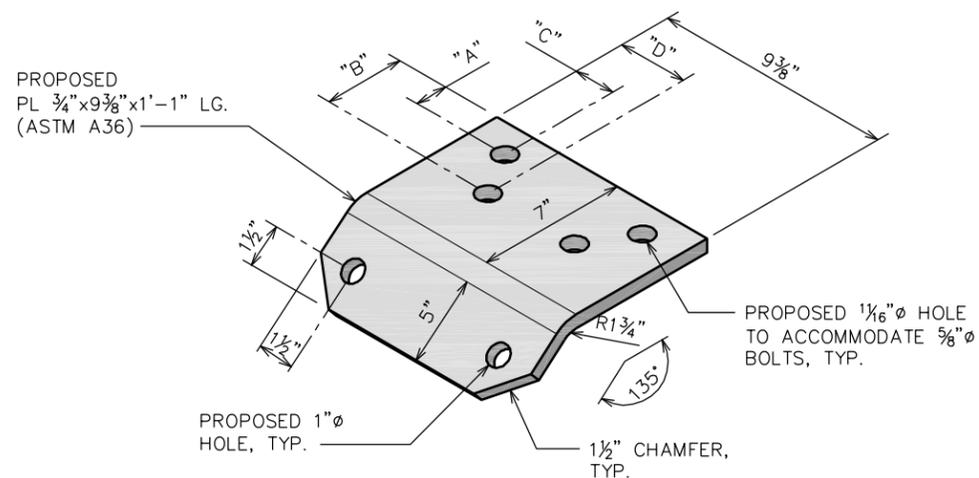
PIECEMARK # PL-2

SCALE: 1 1/2" = 1'-0"



DIMENSIONS

GUY LEVEL.	ELEVATION	LEG SIZE	"A" DIM.	"B" DIM.	"C" DIM.	"D" DIM.
3	140'	2 1/2" Ø STD. (2.875" O.D.)	1 1/4"	3 3/16"	1 1/2"	2 3/4"
6	260'	2 1/2" Ø STD. (2.875" O.D.)	1 1/4"	3 3/16"	1 1/2"	2 3/4"



PIECEMARK # PL-1

SCALE: 1 1/2" = 1'-0"



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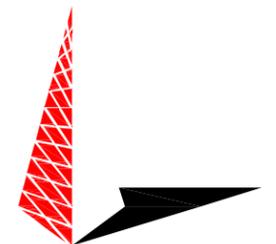
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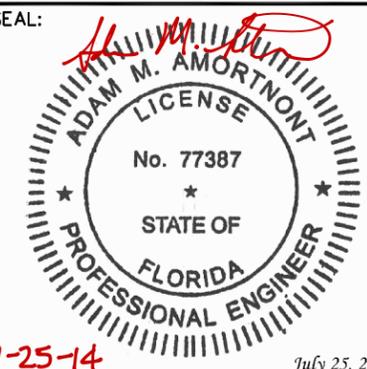
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SHEET TITLE:

**TORQUE ARM
DETAILS II**

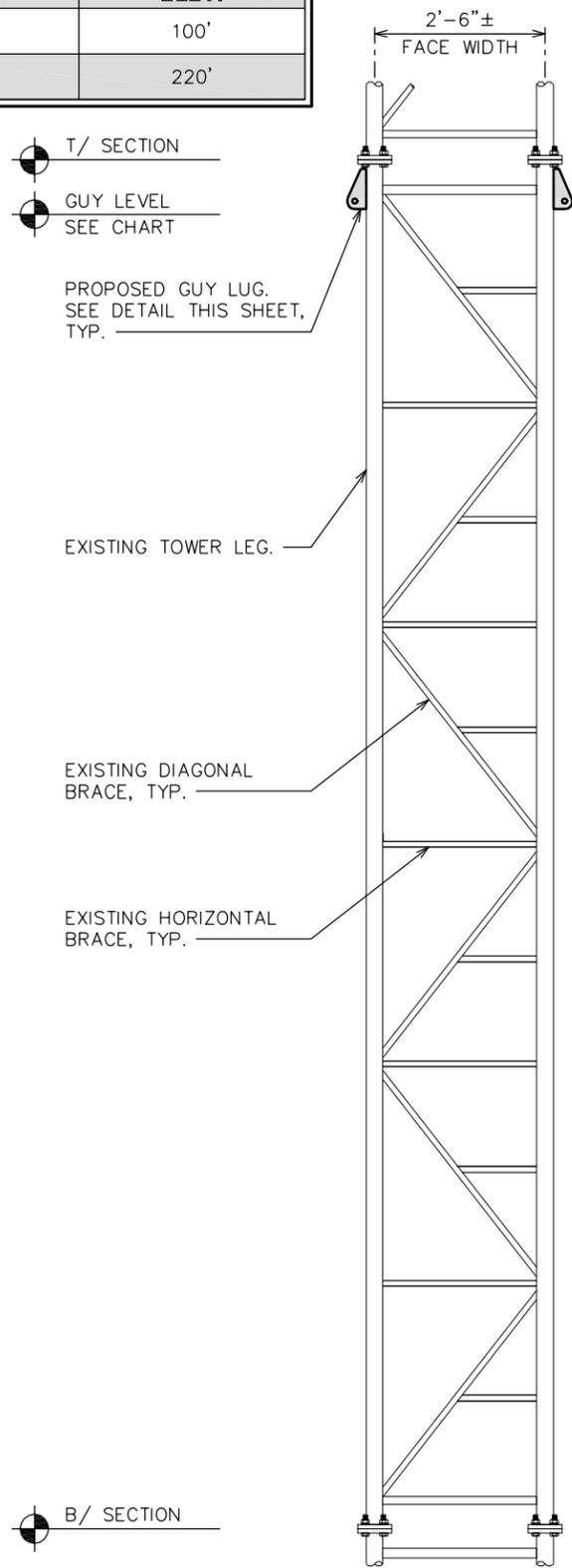
SHEET NUMBER:	REVISION:
S-5	0
TEP #: 50108.12262	

GUY LUG ELEVATION

GUY LEVEL	GUY ELEV.
2	100'
5	220'

NOTE:

GUY WIRES NOT SHOWN FOR CLARITY.

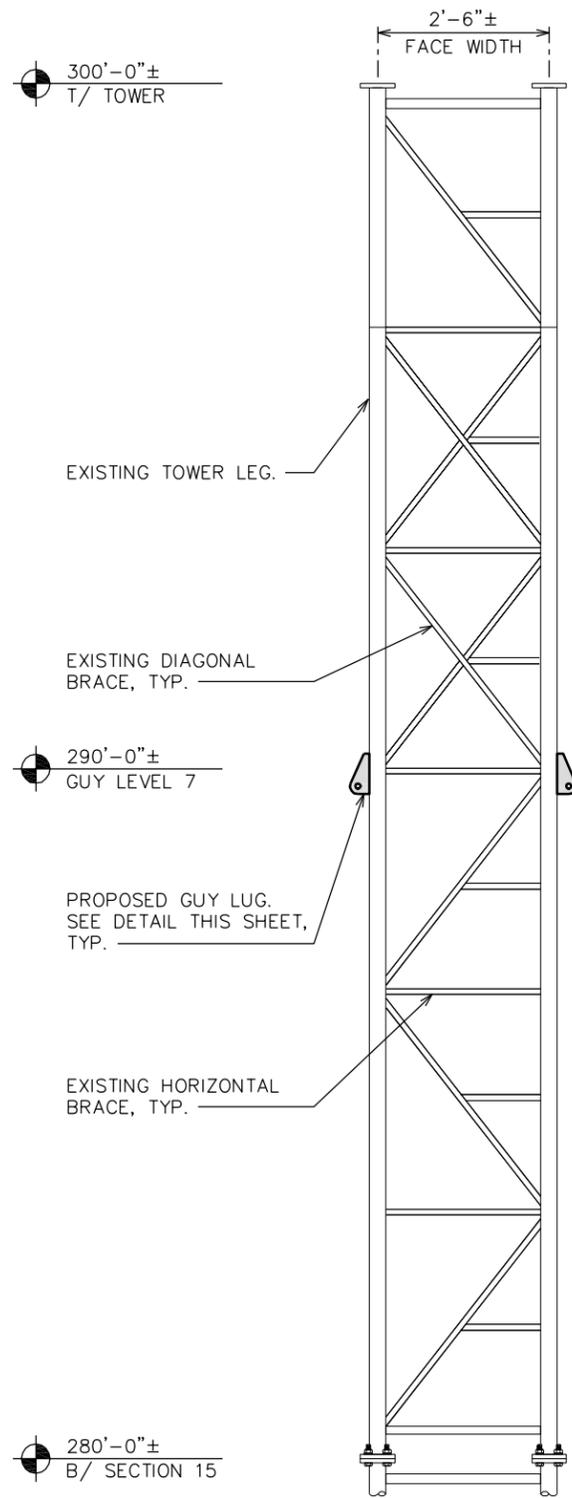


PARTIAL ELEVATION

SCALE: 3/8" = 1'-0"

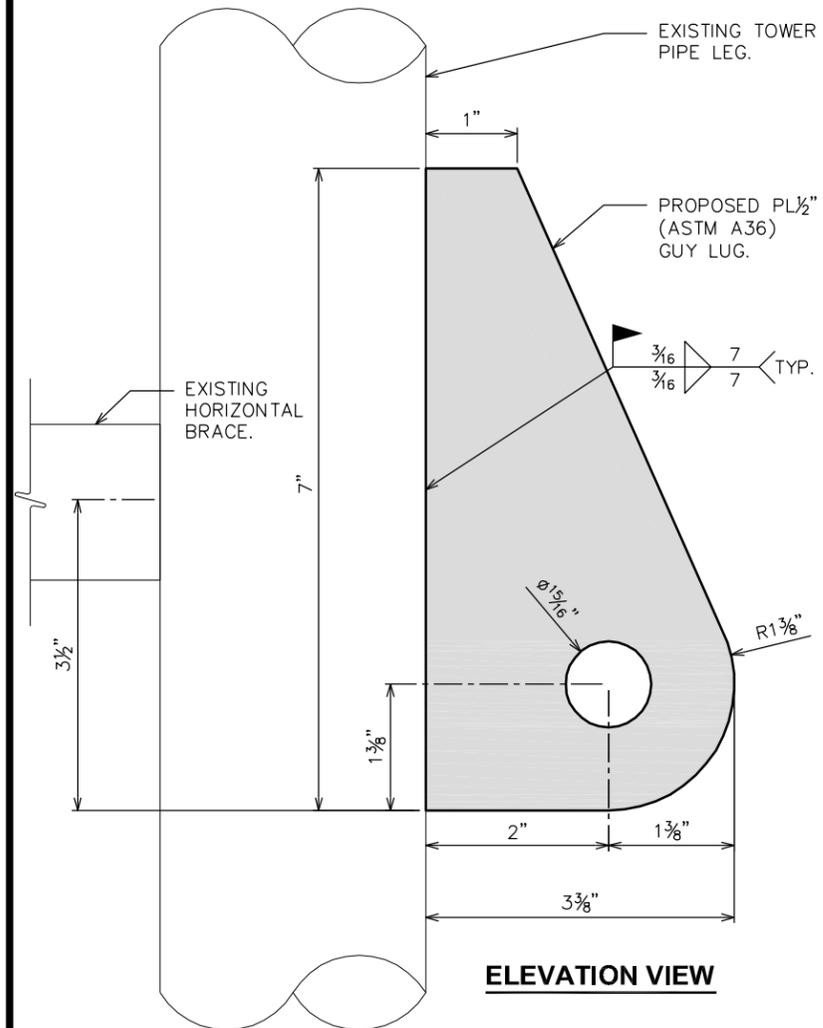
NOTE:

GUY WIRES NOT SHOWN FOR CLARITY.

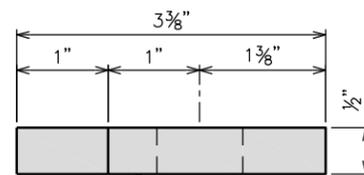


SECTION 15 ELEVATION

SCALE: 3/8" = 1'-0"



ELEVATION VIEW



PLAN VIEW

GUY LUG DETAILS

SCALE: 6" = 1'-0"

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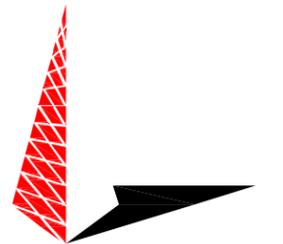
263 NW LAKE CITY AVE.,
LAKE CITY, FL 32055
OFFICE: (386) 758-1125

PROJECT INFORMATION:

CUMORAH HILL SITE #: 1049323

1077 SW CUMORAH HILL ST.,
FORT WHITE, FL 32038
(COLUMBIA COUNTY)

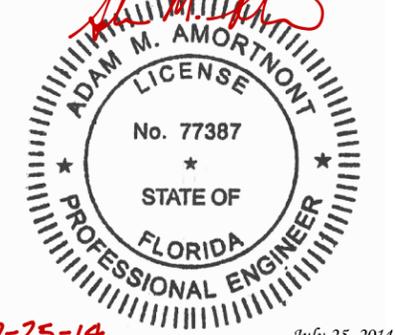
PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS

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RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
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7-25-14

July 25, 2014

REV	DATE	ISSUED FOR:
0	07-25-14	MODIFICATION DRAWINGS

DRAWN BY: JS CHECKED BY: JRM

SHEET TITLE:

GUY LUG DETAILS

SHEET NUMBER: REVISION:

S-6

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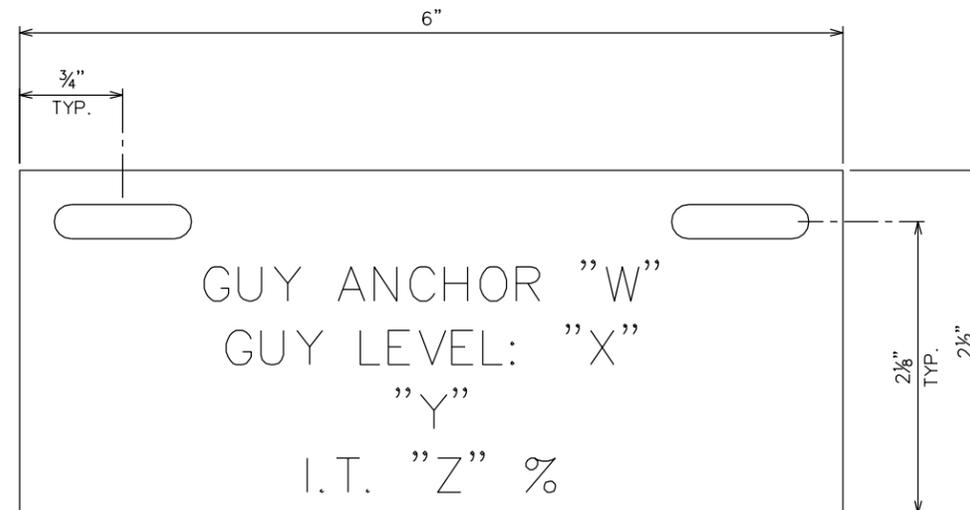
TEP #: 50108.12262

INSTALLING GUYS AND PLUMBING TOWER:

1. THE TOWER IS DESIGNED FOR INITIAL TENSION AS SPECIFIED IN THE ERECTION DRAWINGS. IT IS IMPORTANT THAT THE GUYS BE TENSIONED ACCURATELY TO ASSURE THE STIFFNESS OF THE TOWER.
2. UNEVEN TERRAIN, TEMPERATURE, PLUMBNESS OF TOWER AND WIND ARE FACTORS WHICH AFFECT GUY TENSIONS. IF THE TOWER SITE IS LEVEL AND ANCHOR DISTANCES ARE EQUAL, THE TENSIONS IN ALL THREE GUYS AT A LEVEL WILL BE EQUAL WHEN THE TOWER IS PLUMB. IF THE TERRAIN OF THE TOWER SITE IS UNEVEN, THE GUYS ARE NOT PERFECTLY SYMMETRICAL AND TENSIONS IN GUYS VARY IN THE THREE DIRECTIONS. INITIAL GUY TENSIONS, SHOWN ON THIS SHEET, ARE BASED ON THE RELATIVE ELEVATION SHOWN. THE TOWER SHOULD BE PLUMBED WITH THE SPECIFIED TENSIONS.
3. WIND LOAD ON TOWER AND GUYS CHANGES THE TENSION IN ALL GUYS; THEREFORE, PLUMB THE TOWER IN CALM WEATHER ONLY.
4. WHEN INSTALLING GUYS, ALL THREE PERMANENT GUYS SHOULD BE FASTENED TO THE TOWER FIRST. THEN ALL GUYS SHOULD BE PULLED TO THE ANCHORS SIMULTANEOUSLY.
5. THE ONLY SATISFACTORY WAY OF PLUMBING A TOWER OR OF CHECKING ALIGNMENT OF A TOWER AT A LATER DATE IS WITH THE USE OF THREE (FOUR IF THE TOWER IS FOUR LEGGED) TRANSITS. A TRANSIT IS TO BE SET UP ON EACH LEG AZIMUTH AT THE BASE OF THE TOWER. THE CORRESPONDING TOWER LEG AT THE BASE OF THE TOWER IS USED TO SET THE VERTICAL BASELINE. THE DEFLECTION AT EACH POINT OF INTEREST ON THE TOWER IS MEASURED FROM THIS VERTICAL BASELINE. TWIST & PLUMB TOLERANCES ARE AS SPECIFIED IN THE TIA STANDARD. SEE THE CORRESPONDING STRUCTURAL ANALYSIS FOR THE REVISION ON THE STANDARD REFERENCED.

GUY HARDWARE

GUY WIRE SIZE	TURNBUCKLE		SHACKLE		THIMBLE		END SLEEVE		BIG GRIP	
	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.
3/16" EHS	3/8"	-	3/8"	-	5/16"	-	3/16"	-	3/16"	-
1/4" EHS	1/2"	-	3/8"	-	3/8"	-	1/4"	-	1/4"	-
5/16" EHS	5/8"	-	1/2"	-	7/16"	-	5/16"	-	5/16"	-
3/8" EHS	5/8"	-	1/2"	-	1/2"	-	3/8"	-	3/8"	-
7/16" EHS	3/4"	3	5/8"	3	9/16"	6	7/16"	6	7/16"	6
1/2" EHS	7/8"	12	5/8"	9	5/8"	21	1/2"	21	1/2"	21
9/16" EHS	7/8"	-	3/4"	-	5/8"	-	9/16"	-	9/16"	-
5/8" EHS	1"	12	3/4"	12	3/4"	24	5/8"	24	5/8"	24
1 1/16" EHS	1"	-	7/8"	-	3/4"	-	1 1/16"	-	1 1/16"	-
3/4" EHS	1 1/4"	-	7/8"	-	7/8"	-	3/4"	-	3/4"	-
7/8" EHS	1 1/2"	-	1"	-	1"	-	7/8"	-	7/8"	-
1" BS	1 3/4"	-	1 1/4"	-	-	-	1"	-	1"	-



STAINLESS STEEL TENSION PLACARD

MATERIAL: 12 G₀ STAINLESS STEEL

TEXT: 1/4" HIGH, CENTERED HORIZONTALLY AND EQUALLY SPACED VERTICALLY ON PLATE

GUY WIRE TENSION PLACARD TEXT CHART

**ALL GUY WIRES SET TO 10% INITIAL TENSION, NO PLACARDS REQUIRED.

1. EACH TENSION PLACARD INCLUDES (2) STAINLESS STEEL HOSE CLAMPS TO FIT GUY WIRE.
2. INSTALL PLACARD TO THE GUY WIRE OR GUY WIRE TURNBUCKLE.
3. ONLY (1) REQUIRED PER SET OF GUY WIRES AT EACH TORQUE ARM LEVEL.
4. A RUBBERIZED PLACARD AND BLACK ULTRA-VIOLET RESISTANT TIE WRAPS ARE CONSIDERED AN APPROVED ALTERNATIVE TO THE STAINLESS STEEL PLACARDS AND STAINLESS STEEL HOSE CLAMPS.

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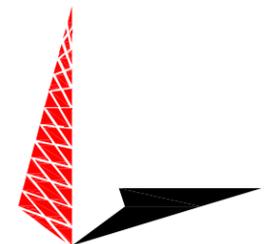
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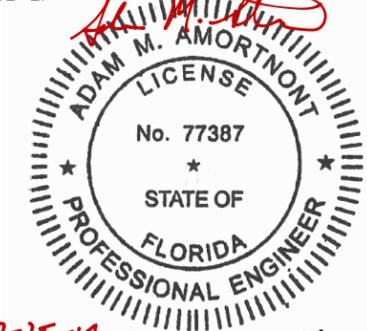
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REV	DATE	ISSUED FOR:
0	07-25-14	MODIFICATION DRAWINGS

DRAWN BY: JS CHECKED BY: JRM

SHEET TITLE:

GUY WIRE INSTALLATION DETAILS I

SHEET NUMBER:

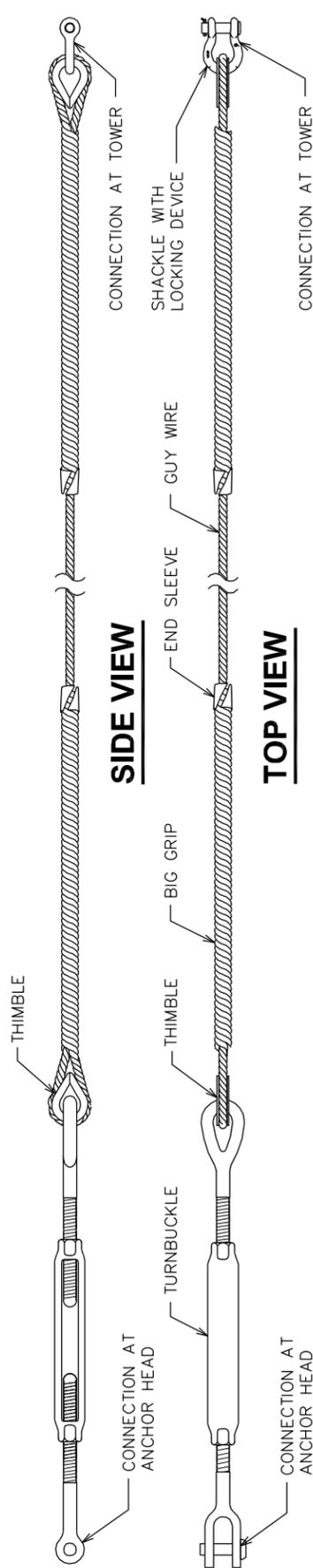
S-7

REVISION:

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TEP #: 50108.12262

THIMBLE



SIDE VIEW

TOP VIEW

GUY WIRE PROPERTIES

Guy Elevation	Guy Grade	Guy Size	Initial Tension	%	Guy Modulus	Guy Weight	L_u	Anchor Radius	Anchor Azimuth Adj.	Anchor Elevation	End Fitting Efficiency
ft			lb		ksi	p/lf	ft	ft	°	ft	%
290	EHS	A	4240.00	10%	21000	0.813	375.92	240.50	0.0000	-0.50	100%
		B	4240.00	10%	21000	0.813	375.14	240.50	0.0000	0.50	100%
		C	4240.00	10%	21000	0.813	374.76	240.50	0.0000	1.00	100%
259.625	EHS	A	4240.00	10%	21000	0.813	353.02	240.50	0.0000	-0.50	100%
		B	4240.00	10%	21000	0.813	352.28	240.50	0.0000	0.50	100%
		C	4240.00	10%	21000	0.813	351.92	240.50	0.0000	1.00	100%
219.625	EHS	A	4240.00	10%	21000	0.813	282.82	180.00	0.0000	0.00	100%
		B	4240.00	10%	21000	0.813	282.82	180.00	0.0000	0.00	100%
		C	4240.00	10%	21000	0.813	282.82	180.00	0.0000	0.00	100%
179.625	EHS	A	2690.00	10%	21000	0.517	253.07	180.00	0.0000	0.00	100%
		B	2690.00	10%	21000	0.517	253.07	180.00	0.0000	0.00	100%
		C	2690.00	10%	21000	0.517	253.07	180.00	0.0000	0.00	100%
139.625	EHS	A	2690.00	10%	21000	0.517	226.49	180.00	0.0000	0.00	100%
		B	2690.00	10%	21000	0.517	226.49	180.00	0.0000	0.00	100%
		C	2690.00	10%	21000	0.517	226.49	180.00	0.0000	0.00	100%
99.625	EHS	A	2690.00	10%	21000	0.517	204.30	180.00	0.0000	0.00	100%
		B	2690.00	10%	21000	0.517	204.30	180.00	0.0000	0.00	100%
		C	2690.00	10%	21000	0.517	204.30	180.00	0.0000	0.00	100%
59.625	EHS	A	2080.00	10%	21000	0.399	188.10	180.00	0.0000	0.00	100%
		B	2080.00	10%	21000	0.399	188.10	180.00	0.0000	0.00	100%
		C	2080.00	10%	21000	0.399	188.10	180.00	0.0000	0.00	100%

GUY TENSIONING INFORMATION

Temperature At Time Of Tensioning

Guy Elevation	H	V	20 F		40 F		60 F		80 F		100 F		120 F	
			Initial Tension	Intercept										
ft	ft	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft
290	A	239.06	4687	11.96	4461	12.56	4240	13.20	4024	13.89	3814	14.63	3611	15.43
	B	239.06	4689	11.91	4462	12.50	4240	13.14	4023	13.83	3812	14.58	3608	15.38
	C	239.06	4690	11.88	4463	12.48	4240	13.12	4023	13.81	3811	14.55	3607	15.35
259.625	A	239.07	4748	10.44	4491	11.03	4240	11.67	3996	12.37	3759	13.13	3532	13.95
	B	239.07	4750	10.40	4492	10.98	4240	11.62	3995	12.32	3757	13.08	3529	13.90
	C	239.07	4752	10.37	4493	10.96	4240	11.60	3994	12.30	3756	13.06	3528	13.88
219.625	A	178.56	4710	6.78	4473	7.13	4240	7.52	4010	7.94	3785	8.40	3565	8.91
	B	178.56	4710	6.78	4473	7.13	4240	7.52	4010	7.94	3785	8.40	3565	8.91
	C	178.56	4710	6.78	4473	7.13	4240	7.52	4010	7.94	3785	8.40	3565	8.91
179.625	A	178.56	3063	5.33	2875	5.67	2690	6.06	2509	6.49	2332	6.97	2160	7.51
	B	178.56	3063	5.33	2875	5.67	2690	6.06	2509	6.49	2332	6.97	2160	7.51
	C	178.56	3063	5.33	2875	5.67	2690	6.06	2509	6.49	2332	6.97	2160	7.51
139.625	A	178.57	3157	4.16	2921	4.49	2690	4.87	2465	5.31	2246	5.82	2038	6.40
	B	178.57	3157	4.16	2921	4.49	2690	4.87	2465	5.31	2246	5.82	2038	6.40
	C	178.57	3157	4.16	2921	4.49	2690	4.87	2465	5.31	2246	5.82	2038	6.40
99.625	A	178.56	3266	3.28	2975	3.60	2690	3.98	2414	4.43	2151	4.96	1903	5.60
	B	178.56	3266	3.28	2975	3.60	2690	3.98	2414	4.43	2151	4.96	1903	5.60
	C	178.56	3266	3.28	2975	3.60	2690	3.98	2414	4.43	2151	4.96	1903	5.60
59.625	A	178.56	2606	2.70	2340	3.00	2080	3.38	1830	3.84	1593	4.40	1376	5.09
	B	178.56	2606	2.70	2340	3.00	2080	3.38	1830	3.84	1593	4.40	1376	5.09
	C	178.56	2606	2.70	2340	3.00	2080	3.38	1830	3.84	1593	4.40	1376	5.09

1. THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED. SEE SHEET S-7 FOR PREFERRED LABELING PROCEDURE.

2. SEE SHEET S-7 FOR THE NECESSARY GUY HARDWARE TO COMPLETE THE INSTALLATION. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING, FABRICATION, & ERECTION OF ANY MATERIALS. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY GUYING THE TOWER DURING MODIFICATION WORK.

3. SEE SHEET S-9 FOR TYPICAL GUY GROUNDING DETAILS.

4. GIVEN LENGTHS (Lu) ARE ACTUAL GUY WIRE LENGTHS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AMOUNT OF GUY WIRE TO ORDER.

5. THE MAXIMUM DEVIATION FROM THE DESIGN INITIAL TENSION SHALL BE ±10% FOR GUYS UP TO AND INCLUDING 1" DIAMETER AND ±5% FOR GUYS GREATER THAN 1" DIAMETER, OF THE SPECIFIED DESIGN INITIAL TENSION AT AN ANCHORAGE, CORRECTED FOR THE AMBIENT TEMPERATURE.

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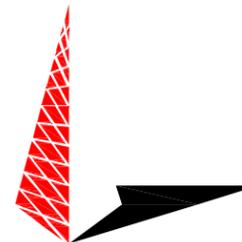
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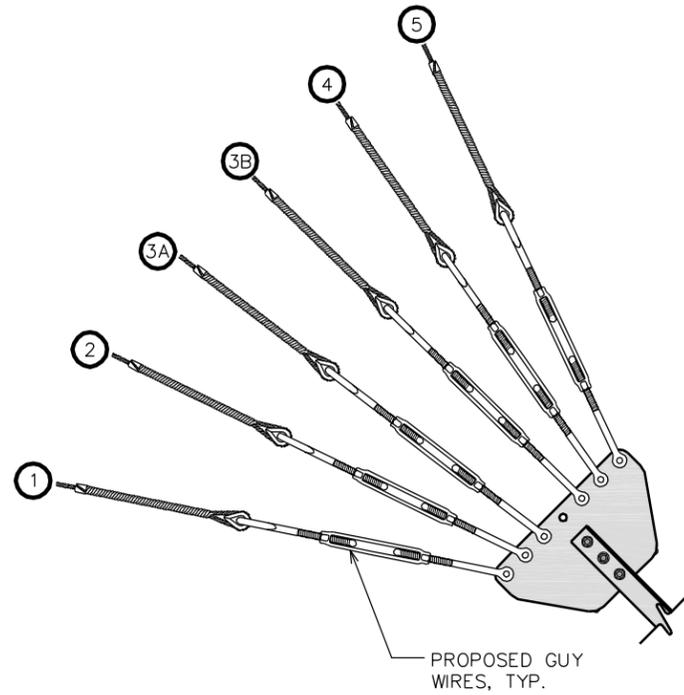
July 25, 2014

0	07-25-14	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JS CHECKED BY: JRM

SHEET TITLE:
GUY WIRE INSTALLATION DETAILS II

SHEET NUMBER: **S-8** REVISION: **0**
TEP #: 50108.12262



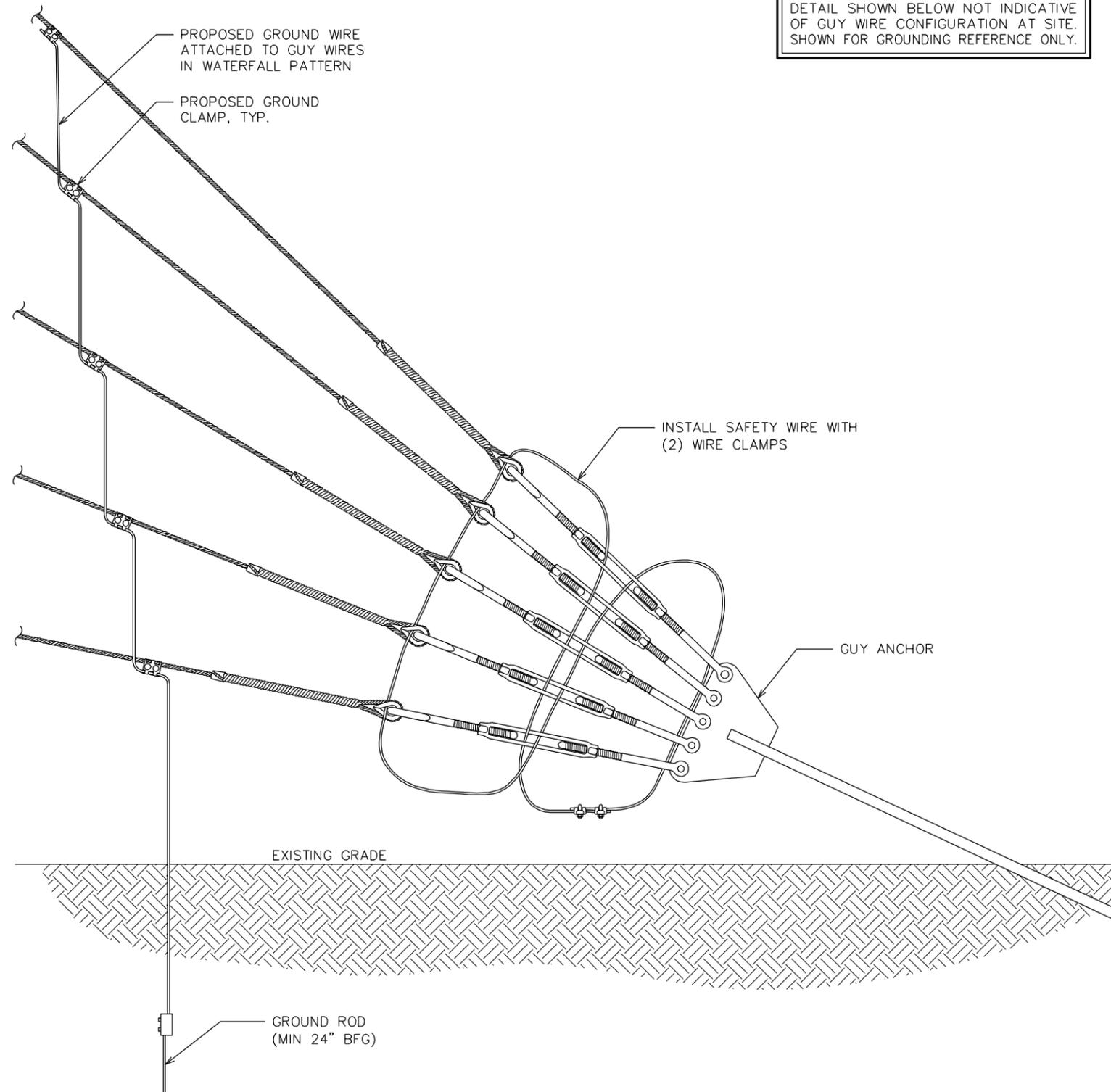
INNER GUY ANCHOR CONFIGURATION

SCALE: N.T.S.



OUTER GUY ANCHOR CONFIGURATION

SCALE: N.T.S.



ATTENTION

DETAIL SHOWN BELOW NOT INDICATIVE OF GUY WIRE CONFIGURATION AT SITE. SHOWN FOR GROUNDING REFERENCE ONLY.

GUY ANCHOR GROUNDING DETAILS

SCALE: N.T.S.

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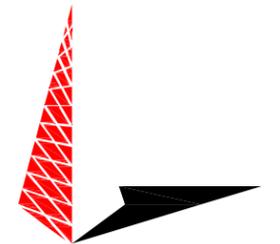
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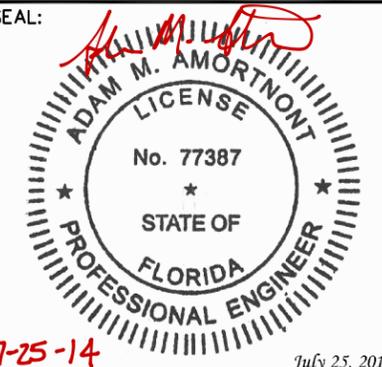
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DRAWN BY: JS CHECKED BY: JRM

SHEET TITLE:

**GUY ANCHOR
GROUNDING DETAILS**

SHEET NUMBER: S-9	REVISION: 0
TEP #: 50108.12262	