

EXHIBIT B

LICENSE

(This document is a license of less than 99 years and not a conveyance subject to Transfer Return and fee per Sec. 77.21(1) Wis. Stats.)

This License is entered into this _____ day of _____, 2022, by and between the **City of Madison**, a Wisconsin municipal corporation, located in Dane County, Wisconsin (“City”), and **New Cingular Wireless PCS, LLC**, a Delaware limited liability company (“Licensee”).

WITNESSETH:

WHEREAS, the City and Madison SMSA Limited Partnership are parties to that certain License, dated March 26, 2002, as amended, and recorded with the Dane County Register of Deeds on March 28, 2002 as Document No. 3467325 (the “2002 License”); and

WHEREAS, the Licensee is the successor to Madison SMSA Limited Partnership; and

WHEREAS, the 2002 License pertains to the placement by the Licensee of telecommunications equipment on the City-owned water tower located at 4724 Spaanem Avenue, Madison, Wisconsin, together with the placement of a telecommunications shelter for housing telecommunications equipment on land near the base of the tower; and

WHEREAS, the term of the 2002 License is scheduled to expire on March 31, 2022, and the Licensee desires to continue to operate and maintain its telecommunications equipment at the site, and the City is agreeable to allowing such continued use.

NOW, THEREFORE, the Parties hereby agree as follows:

1. **Termination of 2002 License**. The 2002 License shall terminate effective as of midnight of the day immediately preceding the “Effective Date” set forth in Paragraph 3.
2. **Premises**. The City hereby grants to the Licensee the continued right to place telecommunications antennas and ancillary equipment on the City-owned water tower (“Tower”) located at 4724 Spaanem Avenue, Madison, Wisconsin, and to place telecommunications equipment within a telecommunications shelter on land near the base of the Tower (“Land”). The Tower and the Land are located on property (“Property”) described on Exhibit A and are depicted on Exhibit B, which exhibits are attached hereto and incorporated herein by reference. The Land and the space on the Tower are hereinafter collectively referred to as the “Premises”.
3. **Term**. This License shall be for an initial term of five (5) years, subject to early revocation or termination pursuant to the terms of this License. This License shall commence as of April 1, 2022 (the “Effective Date”) and expire on March 31, 2027.

RETURN TO: City of Madison
Economic Development Division
Office of Real Estate Services
P.O. Box 2983
Madison, WI 53701-2983

Tax Parcel No.: 251-0710-161-1118-1 (part of)

4. Renewal. This License may be renewed for three (3) subsequent five (5) year terms upon agreement of the parties as to the terms of the renewal. If the Licensee desires to renew this License, the Licensee must give notice in writing to the City a minimum of one hundred eighty (180) days prior to the expiration of the initial term or any renewal term in the manner specified in Paragraph 27. Following receipt of such notice, the City shall indicate by written notice to the Licensee, given within sixty (60) days after receipt of the Licensee's notice, of its approval or denial of the Licensee's request for renewal. The City shall not unreasonably withhold, condition or delay its approval of the Licensee's notice of renewal, and the parties shall negotiate in good faith as to the terms of the renewal.
5. Hold Over. In the event the Licensee shall continue to occupy or use the Premises after the expiration of this License or any extension thereof, such holding over shall be deemed to constitute an occupancy from month to month, upon the same terms and conditions as herein provided except that a License Fee equal to one-twelfth (1/12) of the annual License Fee shall be paid monthly in advance, and in no event shall the occupancy be deemed to be from one (1) year to one (1) year.
6. Use.
 - a. The Licensee's use of the Premises shall be limited to the placement, construction, operation, maintenance, repair, replacement and removal of up to nine (9) telecommunications antennas ("Antenna" or "Antennas") on the Tower. The Licensee shall also be permitted to install ancillary equipment (e.g. remote radio units, tower mounted amplifiers, etc.) ("Ancillary Equipment") on the Tower. The Antennas and Ancillary Equipment are hereinafter collectively referred to as the "Equipment." The Licensee shall have the right to place an additional three (3) telecommunications antennas on the Tower at any time during the term of this License, subject to the provisions of Paragraph 9.
 - b. The Licensee shall also be permitted to operate, maintain, repair, replace and remove the existing communications shelter ("Shelter") on the Land, together with wiring and conduit necessary to connect the Equipment on the Tower and the Shelter and to provide necessary utility service thereto. The current as-built construction drawings, including a complete and detailed inventory of all Equipment and improvements installed on the Tower and upon the Land, are attached hereto as Exhibit C and made part of this License by reference. The parties acknowledge that this License is non-exclusive and that the City will continue to use the Tower and shall have the right to lease or grant other licenses to one or more entities on the Tower, provided that any such subsequent use, lease, or license shall not interfere with the Licensee's rights under this License.
7. Acceptance of Premises. The Licensee has taken possession of the Premises pursuant to the 2002 License. The taking of possession of the Premises by the Licensee is conclusive evidence that the Licensee:
 - a. accepts the Premises as suitable for the purposes for which it is licensed; and
 - b. accepts the Premises and every part thereof in an as-is condition, with all defects, except for latent defects.

8. Administrative Fees.

- a. The Licensee shall pay to the City a one-time administrative fee of Two Thousand Five Hundred and no/100 Dollars (\$2,500.00), the receipt of which is hereby acknowledged by the City, as payment of the City's costs of negotiating and processing this License.
- b. The Licensee shall pay to the City an administrative fee of Two Thousand and no/100 Dollars (\$2,000.00) for each subsequent amendment to this License, if any, except for (i) an amendment requested by City, or (ii) necessitated by City's actions, in which case no administrative fee shall be due from Licensee.

9. License Fee.

- a. The Licensee shall pay to the City a base annual fee ("Base Antenna Fee") of Thirty Thousand and 00/100 Dollars (\$30,000.00) for the right to install Equipment occupying up to one hundred (100) cubic feet of air space on the Tower and for the use of the Land. The Base Antenna Fee shall increase annually by three percent (3%) effective as of each anniversary of the Effective Date of this License.
- b. The Licensee shall pay an annual "Additional Fee" of Twenty-five and no/100 Dollars (\$25.00) per cubic foot of air space on the Tower occupied by Equipment in excess of the 100 cubic feet of air space allowed in Paragraph 9.a. above, which Additional Fee shall be indexed at a rate of three percent (3%) annually, calculated retroactively for each full year since the Effective Date.
- c. The Base Antenna Fee and Additional Fee are hereinafter collectively referred to as the "License Fee". The License Fee schedule is set forth in attached Exhibit D.
- d. The first payment shall be due upon the Effective Date of this License. Subsequent License Fee payments shall be due on or before the anniversary of the Effective Date of this License. All payments are to be made to the City Treasurer, referenced to Real Estate Project No. 5048, and sent or personally delivered to the City's Economic Development Division at the address specified in Paragraph 27.
- e. In addition to the provisions of Paragraph 20, the City shall have the right, under this Paragraph, to send late payments of the License Fee to a collection agency and to the Wisconsin Department of Revenue pursuant to the State Debt Collection program under Wis. Stat. §71.935.
- f. In the event the Licensee, in accordance with Paragraph 6, places three (3) additional telecommunications antennas on the Tower, the annual License Fee payable thereafter shall become payable effective upon the installation of the additional antennas and shall be prorated for any partial year.

10. Interference.

The Licensee's installation, operation, and maintenance of the Equipment and Shelter shall not damage or interfere in any way the City's Tower operations or related repair and maintenance activities or with such activities of other licensees. The Licensee agrees to cease all such actions which materially interfere with the City's use of the Tower immediately upon actual notice of

such interference, provided however, in such case, the Licensee shall have the right to terminate the License. The City, at all times during this License, reserves the right to take any action it deems necessary, in its sole discretion to repair, maintain, alter or improve the Premises, excluding the Equipment, in connection with Tower operations as may be necessary, including licensing part of the Tower and/or the Land to others, subject to the terms hereof. Except in cases of emergency, the City will endeavor to provide the Licensee with written notice in advance of any scheduled repair, maintenance, alteration or improvement of the Premises. The Licensee agrees to reimburse the City for any additional repair, maintenance, alteration or improvement costs which the City incurs as a result of the Licensee's Equipment being located on the Tower. The City shall attempt to minimize, at no additional expense to the City, any disturbance to the Licensee's operations during such repairs, maintenance, alterations or improvements. Should the City's activities interfere with the Licensee's operation, the City shall, if feasible, allow the Licensee to install temporary facilities, at its sole cost, on the Property until such activities are completed.

Before making any modifications to the existing Equipment, the Licensee shall provide to the City, at the Licensee's expense, an interference study indicating whether the Licensee's modifications will interfere with any existing communications facilities on the Tower and an engineering study indicating whether the Tower is able to structurally support the modifications to the Licensee's Equipment without prejudice to the City's primary use of the Tower.

The City does not guarantee to the Licensee subsequent noninterference with the Licensee's communications operations, provided, however, that in the event any other party except a governmental unit, office or agency requests a license and/or permission to place any type of additional antenna or transmission facility on the Premises, the following procedures shall govern to determine whether such antenna or transmission facility will interfere with the Licensee's transmission operations:

If the City receives any such request, the City shall submit a proposal complete with all technical specifications reasonably requested by the Licensee to the Licensee for review for noninterference; however, the City shall not be required to provide the Licensee with any specifications or information claimed to be of a proprietary nature by the third party. The third party shall be responsible for the reasonable cost of preparing the technical specifications for its proposed transmission facility. The Licensee shall have thirty (30) days following receipt of said proposal to make any objections thereto, and failure to make any objection within said thirty (30) day period shall be deemed consent by the Licensee to the installation of antennas or transmission facilities pursuant to said proposal. If the Licensee gives notice of objection due to interference during such thirty (30) day period and the Licensee's objections are verified by the City to be valid, then the City shall not proceed with such proposal unless the City modifies the proposal in a manner determined, in the City's reasonable judgment, to adequately reduce the interference. In that case, the City may proceed with the proposal.

The Licensee's use and operation of its Equipment shall not interfere with the use and operation of other communication facilities on the Tower which pre-existed the Licensee's Equipment. If the Licensee's Equipment causes interference, the Licensee shall take all measures reasonably necessary to correct and eliminate the interference. If the interference cannot be eliminated within five (5) days after the Licensee has actual notice of this interference, the Licensee shall immediately cease operating its Equipment until the interference has been eliminated (except for periodic testing pursuant to FCC regulations and generally accepted industry standards). If the

interference cannot be eliminated within thirty (30) days, the Licensee shall have the right to terminate this License. If the interference cannot be eliminated within one hundred twenty (120) days, the City may revoke this License. In the event of termination or revocation of the License under this Paragraph, any License Fee that has been prepaid for the period following the termination or revocation shall be prorated on a per diem basis and refunded to the Licensee.

11. RF Emissions.

- a. The Licensee shall be responsible for ensuring that the Equipment does not cause radio frequency ("RF") emissions that are in excess of the safe limits established by the FCC ("RF Standards"). Before installing or making any modifications to the Equipment, the Licensee shall survey the existing RF environment at the Property. By installing the Equipment, the Licensee shall be deemed to have represented to the City that the Equipment shall not itself violate, or, in conjunction with other RF sources located at the Property as of the Effective Date cause to be violated, the RF Standards. The Licensee shall provide the City with safety recommendations that address the protection of those who must be on the Property due to maintenance, repair, or other activities related to the operations carried out at the Property.
- b. The Licensee shall cooperate with the City in reducing RF exposure to maintenance personnel by powering down the Equipment, as necessary, during periods of maintenance at the Property. The City shall provide the Licensee with as much advance notice of any such maintenance as is reasonably available.

12. Construction or Mechanics Liens.

- a. The Licensee shall not suffer or permit any construction or mechanics' liens to be filed, or if filed, to remain uncontested, against the fee of the Premises, nor against the Licensee's interest in the Premises, by reason of work, labor services or materials supplied or claimed to have been supplied to the Licensee or anyone holding the Premises or any part thereof through or under the Licensee; and nothing contained herein shall be deemed or construed in any way as constituting the consent or request of the City, express or implied, by inference or otherwise, to any contractor, subcontractor, laborer or materialman for the performance of any labor or the furnishing of any materials for any specific improvement, alteration or repair of or to the Premises or any part thereof, nor as giving the Licensee any right, power or authority to contract for or permit the rendering of any services or the furnishing of any materials that would give rise to the filing of any mechanics' or construction liens against the fee of the Premises. If any such lien is filed, the Licensee shall immediately cause the same to be discharged or released or shall upon request provide adequate and acceptable security or bond to protect the City's interest.
- b. If any such construction or mechanics' lien shall at any time be filed against the Premises, the Licensee covenants that it will promptly take and diligently prosecute appropriate action to have the same discharged by payment, bonding or otherwise, and that it will hold the City free and harmless of and from any and all liability to any contractor, subcontractor, materialman, laborer or any other person relating to or arising because of any improvements or alterations on or to the Premises, and that it will also defend on behalf of the City, at the Licensee's sole cost and expense, any action, suit or proceeding which may be brought for the enforcement of any such lien, and that it will pay any damages and discharge any judgments entered therein. Upon the Licensee's failure to do

any of the foregoing things, the City may take such action as may be reasonably necessary to protect the City's interest, in addition to any other right or remedy which it may have; and any amount paid by the City in connection with such action shall be repaid by the Licensee to the City upon demand, together with interest thereon at the rate of twelve percent (12%) per annum.

13. Special Conditions.

- a. The Licensee shall work to minimize the impact of any and all cable routes on the overall operation of and clearance spaces within the Tower. If the City finds Licensee's cables to be intruding into the City's work or access space, the Licensee shall reroute, resize or eliminate the interfering cable to the satisfaction of the City.
- b. The Licensee shall limit the number of structural penetrations into the Tower to what is reasonably required for Licensee's use of the Premises. Licensee agrees not to make any unnecessary structural penetrations into the Tower. The City may review Licensee's proposed structural penetrations and provide feedback to Licensee. Licensee shall use good faith efforts to attempt to address the City's feedback regarding Licensee's proposed structural penetrations. The City may limit the use of existing structural penetrations and may limit the size and location of any proposed structural penetrations, as long as such limitations do not unreasonably interfere with Licensee's use of the Premises or Licensee's rights under this License. This penetration limit may require the Licensee to reroute or resize some cables to the extent reasonable and practicable for Licensee's use, in order to meet the needs of the City.
- c. No exterior storage of material, equipment or vehicles is permitted on the Property, except the temporary and orderly placement of items in conjunction with maintenance, repair, replacement or removal activities.
- d. The Licensee shall be responsible for maintaining the Equipment and the Shelter.
- e. The Licensee shall have non-exclusive, unlimited access, 24 hours a day, 7 days a week, 365 days a year, to the Land.
- f. Access to the Tower shall be provided to the Licensee at all times upon notice to the City. The Licensee shall arrange for access to the Tower by contacting the City's Water Works Operator at (608) 266-4665 a minimum of two (2) business days in advance of the Licensee's desired access date. In the event of an emergency, shorter advance notice to the Water Works Operator shall be permissible. At all times during which the Licensee has access to the Tower, the Licensee will take all reasonable steps to ensure that all enclosures, gates, ladders and any other access ways to the Tower are properly secured in order to prevent unauthorized access to the Tower. The Licensee shall be assessed a penalty of Two Thousand and no/100 Dollars (\$2,000.00) for each instance of non-compliance with the requirements of this Subparagraph, payable within forty-five (45) days after Licensee's receipt of notice and invoice from the City; provided, however, that the City must provide the Licensee with written evidence that such violation is due to the acts of the Licensee, its employees, contractors, subcontractors, or agents; and, in the event that curing such violation requires the Licensee to access the Premises, the City shall grant the Licensee such access as soon as reasonably possible after providing notice of such violation.

- g. At all times during which the Licensee has access to the Premises, the Licensee will take all reasonable steps to ensure that all enclosures, gates, ladders and any other access ways to the Premises are properly secured when not in use in order to prevent unauthorized access to the Premises. The Licensee shall be assessed a penalty of Two Thousand and no/100 Dollars (\$2,000.00) for each instance of non-compliance with the requirements of this Subparagraph, payable within forty-five (45) days after Licensee's receipt of notice and invoice from the City; and, in the event that curing such violation requires the Licensee to access the Premises, the City shall grant the Licensee such access as soon as reasonably possible after providing notice of such violation.
- h. The City shall not be liable for any damage to the Equipment, Shelter or other site improvements except to the extent caused by the gross negligence or willful misconduct of the City.
- i. Any modifications to the Equipment or Shelter shall be subject to the written approval of the City and any other required governmental approvals before the Licensee may begin the modification of the Equipment and/or Shelter. The Licensee shall complete and submit to the City the Equipment Modification Form attached as Exhibit E, together with all requisite studies and reports. The City shall have a minimum of thirty (30) days to review and comment on the Licensee's submission of the Equipment Modification Form. In the event a modification should result in a change to the License Fee calculation set forth in Exhibit D, the parties agree to enter into an amendment to this License for the purpose of updating Exhibit D. The adjustment to the License Fee shall be effective upon the date the City issues a consent letter allowing for the Equipment Modification, regardless of the actual date of installation on the Tower, and shall be prorated for any partial year. Notwithstanding any provision of this Subparagraph to the contrary, without obtaining the City's prior consent, the Licensee shall have the right to: (i) make additions, alterations or improvements to the Licensee's equipment housed within any Shelter on the Premises; and (ii) replace any or all of its Equipment installed on or about the Tower with replacement equipment of the same kind, which is reinstalled in the same place and position and is of the same size and weight as the replaced Equipment.
- j. In the event the City requires the expertise of a third party engineer/consultant to review the installation of the Licensee's Equipment and/or Shelter, or any future modifications to the Licensee's Equipment and/or Shelter, the Licensee shall be required to reimburse the City of Madison Water Utility ("MWU") reasonable costs incurred by the MWU as a result of hiring said engineer/consultant. MWU or the City shall provide sufficient supporting documentation and detailed invoices evidencing such reasonable costs to Licensee within thirty (30) days of the date on which such costs were incurred, in order for MWU to be entitled to such reimbursement. Such third-party review shall include, but not be limited to, the following: the review of plans and specifications; review of structural, interference, and other reports; and on-site inspections and meetings. All fees and invoices must be paid within forty-five (45) days after the MWU sends the Licensee an invoice for the same together with reasonable supporting documentation evidencing such fees as set forth herein.
- k. The Equipment shall remain the exclusive property of the Licensee.

- l. The Licensee shall in no way encumber, or allow to be encumbered, the City's title to the Premises.
 - m. Within thirty (30) days following any modification to the Equipment and Shelter, the Licensee shall provide the City with an as-built construction drawings showing the actual location of the Equipment and Shelter installed on the Premises. Said drawings shall be accompanied by a complete and detailed inventory of all Equipment installed on the Tower and the Land.
 - n. The Licensee shall, at its own expense, keep and maintain the Premises in a presentable condition consistent with good business practice and in a manner consistent with the preservation and protection of the general appearance and value of other premises in the immediate vicinity. Maintenance responsibilities include, but shall not be limited to, any required paving, general repairs, removal of garbage and debris, snow removal, landscape and upkeep. No exterior storage of materials, equipment or vehicles is permitted on the Premises, except the temporary and orderly placement of items in conjunction with maintenance, repair or construction activities.
 - o. The Licensee agrees to join and maintain membership in Diggers Hotline and secure and maintain the services of a competent locating service. That membership in Diggers Hotline and contracting of a locating service shall be continuous and uninterrupted throughout the term of this License.
14. Destruction of Premises. If the Tower is damaged or destroyed by fire, winds, flood, lightning or other natural or manmade cause, the City shall have the option to repair or replace the Tower at its sole expense or to revoke the License effective on the date of such damage or destruction. In the event the City revokes the License, the Licensee may install, at its sole expense, temporary facilities to allow the continuation of its telecommunications operations for a period not to exceed one (1) year, unless otherwise agreed to by the City and the Licensee. If the City elects to repair or replace the Tower, the annual License Fee shall be abated until such repair or replacement is completed and any prepaid License Fee for such abatement period shall be a credit against the License Fee for the following year. During the abatement period the Licensee may install, at its sole expense, temporary facilities to allow the continuation of its telecommunication operations. Said temporary facilities shall not interfere with the City's repair or replacement activities. If the City undertakes such repair or replacement but cannot complete the same within a reasonable period of time, which shall not be less than sixty (60) days and not greater than two hundred seventy (270) days, after the damage or destruction occurred, the Licensee may terminate the License upon written notice to the City, effective as of the date that the damage or destruction occurred. In such event, the Licensee shall have no further obligations under this License (except any obligations that by their nature or by their language survive termination). In the event of revocation or termination of the License under this Paragraph, any License Fee that has been prepaid for the period following the revocation or termination shall be prorated on a per diem basis and refunded to the Licensee. The restoration of City services shall be given the highest priority in the event that any of the City's services and the Licensee's telecommunication services are interrupted at the same time, unless otherwise agreed to by the City and the Licensee at the time of restoration.
15. Taxes.

- a. Real Estate Taxes. The City is a tax-exempt entity. Should any City of Madison Ordinance or State of Wisconsin Statute require that the Property be subject to real estate taxes or assessments, the Licensee shall be liable for the Licensee's proportionate share of all such real estate taxes and assessments on a prorata square foot basis as the area of the Premises bears in relation to the Property with respect to the Land and for all taxes imposed on the full value of the Licensee's improvements, if any, constructed on the Land.
 - b. Personal Property Taxes. The Licensee shall pay, before delinquency, all municipal, county and state or federal taxes assessed against any interest of the Licensee in the Premises or assessed against the Equipment and Shelter.
16. Utilities. The Licensee shall be responsible for arranging for the installation of all utility services to the Premises for the Licensee's use and shall be responsible for payment of such utility services.
17. Indemnification. The Licensee shall be liable to and agrees to indemnify, defend and hold harmless the City, and its officers, officials, agents, and employees, against all loss or expense (including liability costs and attorney's fees) by reason of any claim or suit, or of liability imposed by law upon the City or its officers, officials, agents or employees for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damages to property, including loss of use thereof, arising from, in connection with, caused by or resulting from the acts or omissions of the Licensee and/or its officers, officials, agents, employees, assigns, guests, invitees, or subcontractors, in the performance of this License, whether caused by or contributed to by the negligent acts of the City, its officers, officials, agents, or employees. This paragraph shall survive termination and assignment or transfer of this License.
18. Insurance. The Licensee shall carry commercial general liability insurance per ISO form CG 00 01 or its substantial equivalent covering as insured the Licensee and including the City, its officers, officials, agents and employees as additional insureds by endorsement as respects this License, with a limit of \$1,000,000 per occurrence and \$5,000,000 in the aggregate. This policy shall also provide contractual liability coverage in the same amount, and apply on a primary and noncontributory basis. Licensee shall provide the City thirty (30) days advance written notice of cancellation or non-renewal of the policy unless replaced during the term of this License. As evidence of this coverage, the Licensee shall furnish the City with a certificate of insurance on an ACORD form, and if requested by the City Risk Manager, the Licensee shall also provide copies of additional insured endorsements or policy. If the coverage required above expires while this License is in effect, the Licensee shall provide a renewal certificate to the City for approval.
19. Assignment and Sublicensing. The Licensee shall not assign, lease, sublease, or in any way transfer this License or sublicense the Premises, or any portion thereof, or otherwise allow a third party to use the Premises, without the prior written consent of the City. Said consent may be withheld at the sole discretion of the City. Notwithstanding the foregoing, the Licensee shall be permitted to assign this License to any entity which controls, is controlled by, or is under the common control of the Licensee, or to any entity resulting from any merger or consolidation with the Licensee, or to any partner of the Licensee, or to any partnership in which the Licensee is a general partner, or to any person or entity which acquires all of the assets of the Licensee as a going concern. Before an assignment shall be effective, any assignee of this Licensee shall assume in writing all of the obligations of the Licensee under the terms and conditions of this

License. The Licensee shall promptly provide to the City documentation of any assignment of this License.

20. Revocation and Termination.

a. The City shall have the right, at its sole option, to declare this License void, revoke the same, reenter and take possession of the Premises under the following conditions:

(1) By giving the Licensee thirty (30) days written notice, upon or after any one of the following events:

- i. The failure of the Licensee to make any payment due under this License at any time following the filing by the Licensee of a voluntary petition in bankruptcy.
- ii. The institution of proceedings in bankruptcy against the Licensee and the adjudication of the Licensee as bankrupt pursuant to such proceedings.
- iii. The taking by a court of competent jurisdiction of the Licensee's assets pursuant to proceedings brought under the provisions of any federal or state reorganization act.
- iv. The appointment of a receiver of the Licensee's assets.
- v. The divestiture of the Licensee's interest herein by other operation of law, except as permitted in Paragraph 19.
- vi. The abandonment by the Licensee of the Premises.
- vii. The Licensee's use of the Premises for an illegal purpose.
- viii. In the event the Licensee fails to eliminate interference or to cease its operations as required by Paragraph 10.

In the event of revocation under this Subparagraph, any License Fee that has been prepaid shall be retained by the City as liquidated damages.

(2) In the event that the Licensee shall fail to maintain insurance as required by this License, the City may elect to: (a) immediately revoke this License and cause the removal of all Equipment installed upon the Premises at the sole expense of the Licensee; or (b) purchase or pay for any insurance coverage required by this License and charge the Licensee the cost of same as an Additional Fee. In the event of revocation under this Subparagraph, any License Fee that has been prepaid shall be retained by the City as liquidated damages.

(3) By giving the Licensee thirty (30) days written notice specifying the nature of the default in the event the Licensee defaults in the performance of any term or condition of this License other than those as set forth in Subparagraphs 20.a.(1) and 20.a.(2). Notwithstanding the foregoing, if such default is not a health or safety violation and cannot, because of the nature of the default, be cured within said thirty (30) days,

then the Licensee shall be deemed to be complying with such notice if, promptly upon receipt of such notice, the Licensee immediately takes steps to cure the default as soon as reasonably possible and proceeds thereafter continuously with due diligence to cure the default within a period of time which, under all prevailing circumstances, shall be reasonable. In the event of revocation under this Subparagraph, any prepaid License Fee shall be prorated on a per diem basis and refunded to the Licensee.

- (4) Effective at any time following the expiration of the initial five (5)-year term, by giving the Licensee a minimum of one (1) year's prior written notice of revocation in the event the Premises, in the sole discretion of the governing body of the City, are desired for any public purpose or use, which use shall exclude the Licensee's permitted use under this License and any similar private use by any additional telecommunications provider. Any License Fee that has been prepaid for the period following the date the Equipment is relocated shall be prorated on a per diem basis and refunded to the Licensee. In the event of revocation under this Subparagraph, the City shall use its best efforts to provide the Licensee with a satisfactory alternate location on City-owned property which would allow for comparable telecommunications coverage.
 - b. Failure of the City to declare this License revoked upon the breach or default of the Licensee for any reason set forth in Subparagraphs 20.a.(1), 20.a.(2) or 20.a.(3) shall not operate to bar or destroy any right of the City to revoke this License for any subsequent breach or default of any term or condition of this License.
 - c. The Licensee shall have the right to terminate this License at any time during the initial term of this License or any renewal terms by giving the City a minimum of one (1) year's written notice of termination. In the event of termination under this Subparagraph, the date of termination must coincide with the anniversary of the Effective Date.
21. Rights Upon Expiration, Revocation or Termination. Upon the expiration, revocation or termination of this License for any cause, the Licensee's rights in the Premises and its obligations hereunder (except any obligations that by their nature or by their language survive termination) shall cease, and the Licensee shall immediately surrender the Premises, subject to the provisions of Paragraph 24.
22. Compliance. The Licensee shall observe and promptly and effectively comply with all applicable statutes, rules, orders, ordinances, requirements and regulations of the City, the County of Dane, the State of Wisconsin, the federal government and any other governmental authority having jurisdiction over the Premises. The Licensee may, if in good faith and on reasonable grounds, dispute the validity of any charge, complaint or action taken pursuant to or under color of any statute, rule, order, ordinance, requirement or regulation, defend against the same, and in good faith diligently conduct any necessary proceedings to prevent and avoid any adverse consequence of the same. The Licensee agrees that any such contest shall be prosecuted to a final conclusion as soon as possible and that it will hold the City harmless with respect to any actions taken by any lawful governmental authority with respect thereto.
23. Hazardous Substance Indemnification. The Licensee represents and warrants that its use of the Premises herein will not generate any hazardous substance, and it will not store or dispose on the Premises nor transport to or over the Premises any hazardous substance in violation of any

applicable federal, state or local law, regulation or rule. The Licensee further agrees to hold the City harmless from and indemnify the City against any release of such hazardous substance in violation of any applicable federal, state or local law, regulation or rule, and any damage, loss, or expense or liability resulting from such release including all attorneys' fees, costs and penalties incurred as a result thereof, which was caused by the Licensee or any of its employees or agents. "**Hazardous substance**" shall be interpreted broadly to mean any substance or material defined or designated as hazardous or toxic waste, hazardous or toxic material, hazardous or toxic radioactive substance, or other similar term by any federal, state or local environmental law, regulation or rule presently in effect or promulgated in the future, as such laws, regulations or rules may be amended from time to time; and it shall be interpreted to include, but not be limited to, any substance which after release into the environment will or may reasonably be anticipated to cause sickness, death or disease or damage to or loss of use of real or personal property. This paragraph shall survive termination and assignment or transfer of this License.

24. Removal and Disposal of Personal Property. Upon the expiration, revocation or termination of this License, the Licensee, at the Licensee's sole cost, shall remove from the Premises all Equipment installed by the Licensee. The Licensee shall also repair any damages it causes to the Land and Tower to a condition equivalent to that which existed prior to the date that the Licensee first occupied the Land and Tower, except any loss incurred under Paragraph 14. Removal of Equipment and repair of the Land and Tower shall be accomplished within sixty (60) days of expiration, revocation or termination of this License, except as may be adjusted by the City to allow for winter conditions. The expiration or termination of this License shall not become effective until removal and repair have been accomplished to the satisfaction of the City, however, during such removal and repair period the Licensee's right to use the Premises shall be limited to removal and repair activities. In the event the Licensee fails to accomplish said removal and repair, the City may cause the removal and repair to be accomplished at the Licensee's expense and with no liability or cost to the City. The City may waive or alter this removal and repair requirement if, at its sole discretion, it so chooses. Any such waiver or alteration shall not reduce the time allowed for the removal or repair activities or place conditions on the Licensee which are greater than those provided in this Paragraph. To ensure compliance under this Paragraph, the Licensee shall keep in effect throughout the term of this License a surety bond in the amount of \$10,000 with performance payment and maintenance clauses payable to the City.

25. Premises Required By Eminent Domain.

In the event the Premises or any part thereof shall be needed either permanently or temporarily for any public or quasi-public use or purpose by any authority in appropriation proceedings or by any right of eminent domain, the entire compensation award therefor, including, but not limited to, all damages and compensation for diminution of value of this License, and the reversion and fee interests, shall belong to the City without any deduction therefrom for any present or future estate of the Licensee, and the Licensee hereby assigns to the City all of its right, title and interest to any such award. However, the Licensee shall have the right to recover from the condemning authority such compensation as may be separately awarded to the Licensee on account of interruption of the Licensee's business and for moving and relocation expenses.

In the event the whole of the Premises or any part thereof shall be taken or condemned so that the balance cannot be used for the same purpose and with substantially the same utility to the Licensee as immediately prior to such taking, this License shall terminate upon delivery of

possession to the condemning authority and any License Fee that has been prepaid for the period following the termination shall be prorated on a per diem basis and refunded to the Licensee unless the Licensee will receive compensation for any prepaid License Fee from the condemning authority.

In the event of a taking of any portion of the Premises not resulting in a termination of this License, the City shall use so much of the proceeds of the City's award for the Premises as is required therefor to restore the Premises to a complete architectural unit, and this License shall continue in effect with respect to the balance of the Premises, with a reduction of the License Fee in proportion to the portion of the Premises taken.

26. Right of Entry. The City or its representatives shall have the right to enter upon the Premises (but shall not have access to the Shelter or the Equipment without prior notice to the Licensee or without allowing the Licensee to have its representative accompany the City) at any reasonable time for the following purposes:
- a. To make any inspection it may deem expedient to the proper enforcement of any term or condition of this License or in the exercise of its police powers.
 - b. For the purpose of performing work related to any public improvement, provided that the City restore the Premises to a condition equivalent to that which existed on the date the City initiated the installation of the public improvement. The Licensee agrees to hold the City harmless for any loss of access to the Premises by the Licensee which may occur during the period of installation of the public improvement.
27. Notices. All notices to be given under the terms of this License shall be signed by the person sending the same, and shall be sent by certified mail, return receipt requested and postage prepaid, to the address of the parties specified below:

For the City: City of Madison
Economic Development Division
Office of Real Estate Services
Madison Municipal Building
215 Martin Luther King, Jr. Boulevard
P.O. Box 2983
Madison, WI 53701-2983

For the Licensee: New Cingular Wireless PCS, LLC
Attn.: TAG – LA
Re: Cell Site #: WI0184;
Cell Site Name: East Monona (WI)
Fixed Asset #: 10014130
1025 Lenox Park Blvd. NE
3rd Floor
Atlanta, GA 30319

With a copy to: New Cingular Wireless PCS, LLC
Attn.: Legal Department
Re: Cell Site #: WI0184;
Cell Site Name: East Monona (WI)

Fixed Asset #: 10014130
208 S. Akard Street
Dallas, Texas 75202-4206

The copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

Any party hereto may, by giving five (5) days written notice to the other party in the manner herein stated, designate any other address in substitution of the address shown above to which notices shall be given.

28. Definition of City and Licensee. The terms “City” and “Licensee” when used herein shall mean either singular or plural, as the case may be, and the provisions of this License shall bind the parties mutually, their heirs, personal representatives, successors and assigns.
29. Signs. Any signs on the Premises shall be in conformity with the provisions of Chapter 31, Street Graphics Control, Madison General Ordinances. Signage for advertising purposes shall not be permitted.
30. Severability. If any term or provision of this License or the application thereof to the City or the Licensee or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this License, or the application of such terms or provisions to the City or the Licensee or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of the License shall be valid and be enforceable to the fullest extent permitted by law.
31. Non-Discrimination. In the performance of the services under this License, the Licensee agrees not to discriminate because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs or student status. The Licensee further agrees not to discriminate against any contractor, subcontractor or person who offers to contract or subcontract for services under this License because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.
32. Accessibility. The Premises shall conform where applicable to the accessibility provisions of the Wisconsin Administrative Code, Madison General Ordinance 39.05, the Federal Fair Housing Act as amended, and the Americans with Disabilities Act, regarding accessibility for the use of the Premises by the Licensee’s employees, with all costs of compliance to be paid by the Licensee.
33. Subordination.
 - a. This License is subordinate to rights and privileges granted by the City to public and private utilities across, over or under the Premises.
 - b. The Licensee shall subordinate its rights in this License, without compensation, at the request of the City to provide easements and rights-of-way for all public and private utilities across or along the Premises, provided that neither such subordination nor such easements shall interfere, except temporarily during construction or temporarily pursuant

to rights which accrue to such easements or rights-of-way, with the use of the Premises by the Licensee under the terms of this License.

34. No Waiver. No failure to exercise, and no delay in exercising, any right, power or remedy hereunder on the part of the City or the Licensee shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. No express waiver shall affect any event or default other than the event or default specified in such waiver, and any such waiver, to be effective, must be in writing and shall be operative only for the time and to the extent expressly provided by the City or the Licensee therein. A waiver of any covenant, term or condition contained herein shall not be construed as a waiver of any subsequent breach of the same covenant, term or condition.
35. Authorized Agent. The Director of the City's Economic Development Division or the Director's designee is hereby designated as the official representative of the City for the enforcement of all provisions of this License, with authority to administer this License lawfully on behalf of the City.
36. Entire Agreement. All terms and conditions with respect to this License are expressly contained herein, and this License supersedes any and all oral contracts and negotiations between the parties.
37. Amendment. No alteration, amendment, change, or addition to this License shall be binding upon the parties unless in writing and signed by them.
38. Conflict of Interest.
 - a. The Licensee warrants that it and its agents and employees have no public or private interest, and will not acquire directly or indirectly any such interest, which would conflict in any manner with the performance of the services under this License.
 - b. The Licensee shall not employ or contract with any person currently employed by the City for any services included under the provisions of this License.
39. Law Applied. This License shall be governed by and construed, interpreted and enforced in accordance with the laws of the State of Wisconsin and Wisconsin Courts.
40. Third Party Rights. This License is intended to be solely between the parties hereto. No part of this License shall be construed to add, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties, including but not limited to employees of either of the parties.
41. Goodwill. Any and all goodwill arising out of this License inures solely to the benefit of the City; the Licensee waives all claims to benefit of such goodwill.
42. Quiet Enjoyment. Pursuant to this License and subject to the rights and privileges retained by the City and granted to other licensees, the City hereby covenants and agrees that if the Licensee shall perform all of the covenants and agreements herein to be performed on the Licensee's part, the Licensee shall, at all times during the continuance hereof, have the peaceable and quiet

enjoyment and possession of the Premises without any manner of hindrance from the City or any person lawfully claiming the Premises.

43. Public Record. This License will be recorded by the City at the office of the Dane County Register of Deeds after it is executed by the parties.
44. Counterparts, Electronic Signature and Delivery. This License may be signed in counterparts, each of which shall be taken together as a whole to comprise a single document. Signatures on this License may be exchanged between the parties by facsimile, electronic scanned copy (.pdf) or similar technology and shall be as valid as original; and this License may be converted into electronic format and signed or given effect with one or more electronic signature(s) if the electronic signature(s) meets all requirements of Wis. Stat. ch. 137 or other applicable Wisconsin or Federal law. Executed copies or counterparts of this License may be delivered by facsimile or email and upon receipt will be deemed original and binding upon the parties hereto, whether or not a hard copy is also delivered. Copies of this License, fully executed, shall be as valid as an original.

[Signatures on following two pages]

CITY OF MADISON,
a Wisconsin municipal corporation

By: _____
Satya Rhodes-Conway, Mayor

By: _____
Maribeth Witzel-Behl, City Clerk

AUTHENTICATION

The signatures of Satya Rhodes-Conway, Mayor, and Maribeth Witzel-Behl, Clerk, on behalf of the City of Madison, are authenticated on this ____ day of _____, 2022.

Kevin Ramakrishna, Assistant City Attorney
Member of the Wisconsin Bar

Approved:

Approved:

David Schmiedicke
Finance Director

Date

Eric Veum
Risk Manager

Date

Approved as to form:

Michael P. May
City Attorney

Date

Execution of this License by the City of Madison is authorized by Resolution Enactment No. _____, File ID No. _____, adopted by the Common Council of the City of Madison on _____, 2021.

Drafted by the City of Madison Office of Real Estate Services

Project No. 5048

EXHIBIT A

Legal Description

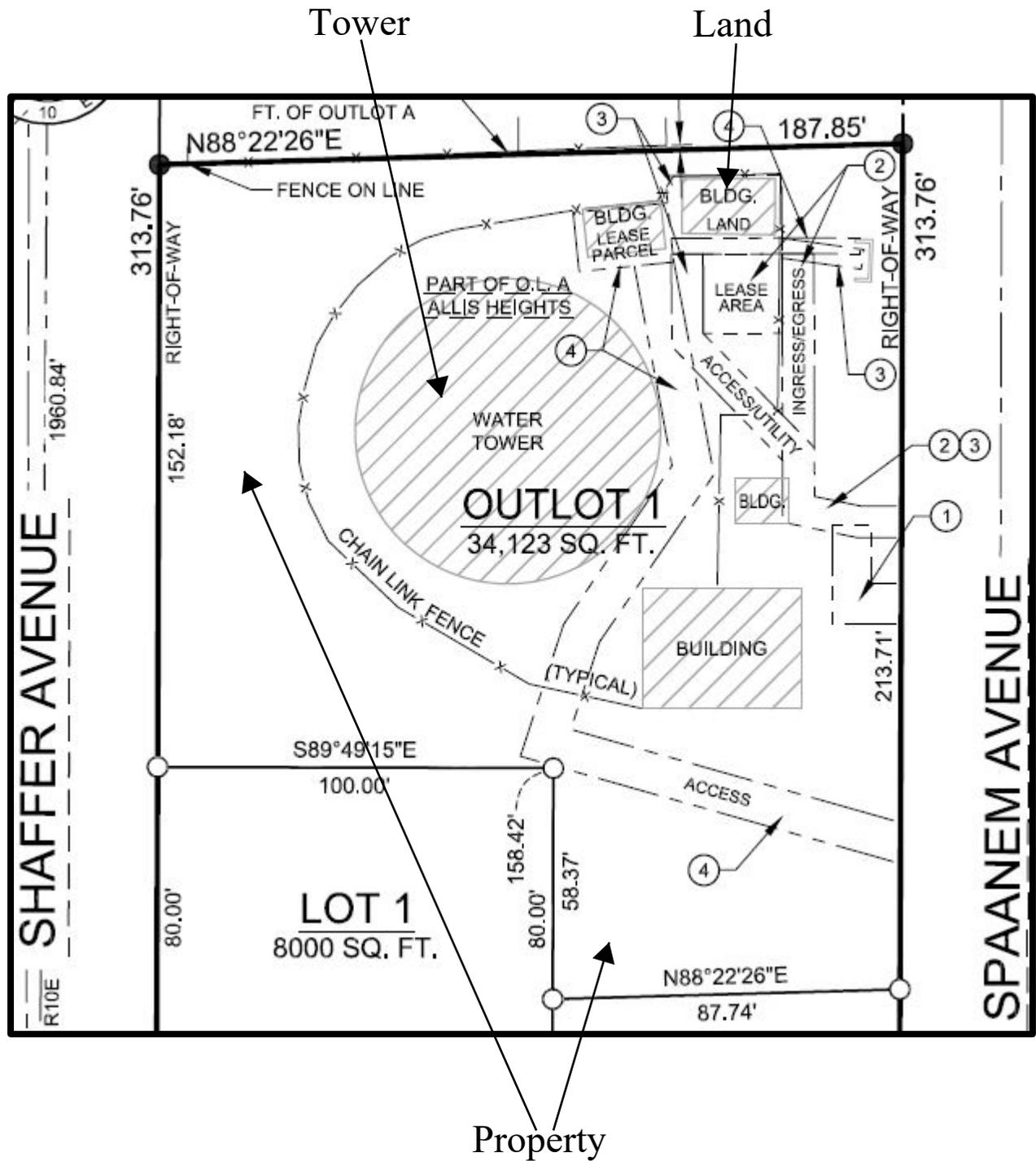
The Property:

Outlot 1 of Certified Survey Map No. 14523, recorded in Volume 100 of Certified Survey Maps, Page 116, in the office of the Dane County Register of Deeds, located in the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Section 16, Town 7 North, Range 10 East, City of Madison, Dane County, Wisconsin.

Note: The Land is located as shown on Exhibit B to the License. The Licensee's use of the Land includes the non-exclusive right to locate underground facilities within the easement corridors shown on Exhibit B.

EXHIBIT B

Site Plan



Tower

Land

Property

TOWER ELEVATION



AERIAL PHOTO



CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING APPLICABLE CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

- BUILDING/DWELLING CODE: IBC 2009
- STRUCTURAL CODE: IBC 2009
- PLUMBING CODE: IPC 2009
- MECHANICAL CODE: IMC 2009
- ELECTRICAL CODE: NEC 2011
- FIRE & LIFE SAFETY CODE: IFC 2009

ONE CALL



As Built 8/1/2018 by Nick Glaves- Key Tower, LLC



SITE NAME:

EAST MONONA

FA # / SITE ID:

10014130 / W10184

PROJECT TYPE:

LTE 4C / LTE 5C

STRUCTURE TYPE:

COLLOCATION 119'-0" WATER TANK

LOCATION MAP



DRIVING DIRECTIONS

FROM DANE COUNTY REGIONAL AIRPORT, HEAD NORTH ON INTERNATIONAL LN. TURN LEFT ONTO PACKERS AVE. TAKE THE ABERG AVE EXIT TOWARD I-90/I-94. TURN LEFT ONTO ABERG AVE (SIGNS FOR I-90/I-94). CONTINUE ONTO WI-30 E. EXIT ONTO US-51 S/N STOUGHTON RD. TURN RIGHT ONTO BUCKEYE RD. TURN LEFT ONTO S PANNEM AVE. SITE WILL BE ON THE RIGHT.

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

PROJECT INFORMATION

LATITUDE: (NAD 83) 43.07209
LONGITUDE: (NAD 83) -89.31569
SITE ADDRESS: W10184-EAST MONONA 4740 SPANNEM AVE MADISON, WI 53716
GROUND ELEVATION: 946' AMSL
MARKET: WISCONSIN-ILLINOIS
JURISDICTION: CITY OF MADISON
COUNTY: DANE
PARENT PAGE IDS: MRCH1028942
CHILD PAGE IDS: MRCH1029166
PTN NUMBERS: 3351A0CMHF / 3351A00G03
OCCUPANCY TYPE: UNMANNED
ADA COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

PROJECT TEAM

ENGINEER/ARCHITECT: CLS GROUP 609 S. KELLY AVENUE, STE. D EDMOND, OK 73003 PM: DAVID ROGERS 405-348-5460
PROJECT MANAGEMENT: SAC WIRELESS 540 W. MADISON ST. 16TH FLOOR CHICAGO, ILLINOIS 60661 CONTACT: DAVID POTEMPA EMAIL: DAVID.POTEMPA@SACW.COM
CUSTOMER: AT&T MOBILITY 930 NATIONAL PARKWAY SHAUMBURG, IL 60173 CONTACT: N/A PHONE: 920-236-7330
SITE ACQUISITION: SAC WIRELESS CONTACT: BRETT MILLER EMAIL: BRETT.MILLER@SACW.COM
TOWER OWNER: CITY OF MADISON WATER UTILITY 119 EAST OLIN AVE MADISON, WI 53713 CONTACT: TOM HEIKKINEN PHONE: 608-266-4651
CONSTRUCTION: SAC WIRELESS CONTACT: JAMES PRATHER EMAIL: JAMES.PRATHER@SACW.COM

DRAWING INDEX

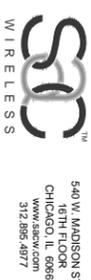
| SHEET # | SHEET DESCRIPTION | REV. # |
|----------|--------------------------------|--------|
| T1 | TITLE SHEET | 0 |
| GN1 | GENERAL NOTES | 0 |
| A1 | COMPOUND PLAN | 0 |
| A2 | EXISTING EQUIPMENT PLAN | 0 |
| A2.1 | PROPOSED EQUIPMENT | 0 |
| A3 | TOWER ELEVATIONS | 0 |
| A4 | ANTENNA PLANS/ANTENNA SCHEDULE | 0 |
| A5 | EQUIPMENT DETAILS | 0 |
| A6 | EQUIPMENT DETAILS | 0 |
| A7 | EQUIPMENT DETAILS | 0 |
| E1 | UTILITY PLAN | 0 |
| G1 | GROUNDING DETAILS | 0 |
| G2 | GROUNDING DETAILS | 0 |
| G3 | GROUNDING DETAILS | 0 |
| ADDENDUM | MOUNT REINFORCEMENT | 0 |

SCOPE OF WORK

- TOWER SOW:
1. MODIFY EXISTING ANTENNA MOUNTS AS PER STRUCTURAL ANALYSIS BY CLS GROUP PROJECT #24015-10014130-01-MA, DATED NOVEMBER 30, 2017.
 - DECOMMISSION AND RETAIN UNITS 1900.
 - REPLACE (1) EXISTING DBXH--6565A-R2M ANTENNA IN POSITION 4 WITH (1) PROPOSED COMSCOPE NNH4-65B-R6 ANTENNA EACH SECTOR.
 - RELOCATE UNITS 850 COAX TO POSITION 1.
 - INSTALL (1) PROPOSED RRUS-32 B66A AND (1) PROPOSED RRUS-4478 IN POSITION 4 EACH SECTOR.
 - REMOVE ALL (6) EXISTING DC2s FROM THE TOWER.
 - INSTALL (1) PROPOSED DC6-48-60-18-8C SQUIDS EACH SECTOR.
 - INSTALL (2) 8-6 DC POWER CABLES (1) 18 PAIR FIBER TRUNK AND (1) ALARM CABLE UP TOWER TO EACH PROPOSED SQUID.
- GROUND SOW:
1. REPLACE (1) EXISTING DUS WITH (1) PROPOSED 5126.
2. INSTALL (1) PROPOSED DC12 RAYCAP.
3. INSTALL (1) PROPOSED XMU (1) 6601, AND (1) IDLZ.
4. INSTALL (3) PROPOSED 1 POLE 30 AMP BREAKERS AND (3) PROPOSED 1 POLE 25 AMP BREAKERS FOR NEW CARRIERS.
5. INSTALL AT&T LOWER FIBER.
6. DECOMMISSION FC12s AND CORRESPONDING POWER AND FIBER RUNS. REUSE POWER AND FIBER AS ALLOWED.

REFERENCE MATERIALS

THESE DRAWINGS ARE BASED OF AT&T SCOPING DOCUMENT DATED 08/15/2017.



CO# 3677 EXP. 01/31/2018

| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 10/06/17 | PRELIMINARY ISSUE | MM |
| 0 | 12/07/17 | FOR CONSTRUCTION | PM |

NOT FOR CONSTRUCTION/UNLESS LABELED AS CONSTRUCTION SET



PE# 45562-6 EXP: 07/31/2018

W10184
EAST MONONA
 FA#: 10014130
 4740 SPANNEM AVE
 MADISON, WI 53716

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T1

GENERAL NOTES

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – GENERAL CONTRACTOR
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – AT&T MOBILITY
OEM – ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSIONS OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING ANY WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES. ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. ROUTING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FOR THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
- ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS UNLESS OTHERWISE SPECIFIED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC 13 EDITION SPECIFICATIONS.
- CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 25741-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES."
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUT DOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- ALL ANTENNA PIPES SHALL BE SCHEDULE 80.
- LIMITS OF LIABILITY – ITEMS REFERENCED WITHOUT ALTERATION AS DIRECTED BY SUPPLIED ITEMS WHICH ARE REPRODUCED ARE OWNER/CLIENT DICTATED ITEMS, OR OWNER/CLIENT, AND OWNER/CLIENT ASSUMES ANY AND ALL LIABILITY FOR USE OF, CONSEQUENCES OF, OR INTERPRETATION OF SAID ITEM, SPECIFICATION, OR DIRECTIVE; AND AGREES TO INDEMNIFY AND HOLD ENGINEER COMPLETELY HARMLESS.
- LIMITS OF LIABILITY – ITEMS REFERENCED ARE OWNER/CLIENT DICTATED ITEMS, OR SUPPLIED ITEMS WHICH ARE REPRODUCED WITHOUT ALTERATION AS DIRECTED BY OWNER/CLIENT, AND OWNER/CLIENT ASSUMES ANY AND ALL LIABILITY FOR USE OF, CONSEQUENCES OF, OR INTERPRETATION OF SAID ITEM, SPECIFICATION, OR DIRECTIVE; AND AGREES TO INDEMNIFY AND HOLD ENGINEER COMPLETELY HARMLESS.

ELECTRICAL INSTALLATION NOTES

- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTORS SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

ELECTRICAL INSTALLATION NOTES CONT.

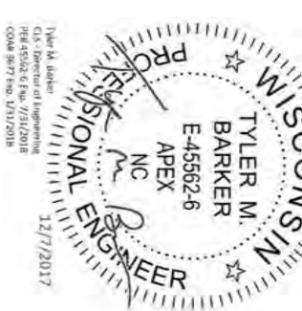
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT IDS).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS WHERE PERMITTED SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES. USE LOW PROFILES TIE WRAPS.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (12 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90C (WET AND DRY) OPERATION. LISTED OR OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90C (WET AND DRY) OPERATION. LISTED OR OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR 2 AWG SOLID TINNED COPPED CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (12 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90C (WET AND DRY) OPERATION. LISTED OR OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WRENUTS SHALL BE RATED FOR OPERATION AT ON LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND. DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER. DESIGNED TO SWING OPEN DOWNWARD. SHALL BE PAINDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 34 (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 34 (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING. SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

GROUNDING NOTES

- THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GEG'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS, IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 91) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH 25471-000-3PS-EG00-0001, DESIGN & TESTING OF FACILITY GROUNDING FOR CELL SITES.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES. 6 AWG STRANDED COPPER OR LARGER INDOORS BTS; 2 AWG STRANDED COPPER FOR OUTDOORS BTS.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- APPROVED ANTI-OXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE TO THE BRIDGE AND THE TOWER GROUND BAR.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- METAL CONDUIT AND TRAY SHALL BE GROUND AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL, SUCH AS PVC PLASTIC CONDUIT SHALL BE USED, WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE). THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL TOWER GROUND SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222. FOR TOWERS BEING BUILT TO REV. G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE CHANGED FROM 2 AWG TO 2/0 AWG. IN ADDITION, THE MINIMAL LENGTH OF THE GROUND RODS SHALL BE INCREASED FOR 8 FEET TO 10 FEET.
- ALL GROUND WIRE TO RUS SHALL BE #2 GREEN STRANDED.
- ALL OUTDOOR LUGS SHALL USE BLACK HEAT SHRINK AND INDOOR LUGS SHALL USE CLEAR HEAT SHRINK.
- ALL OUTDOOR LUGS TO BE LONG BARREL 2 HOLE WITHOUT INSPECTION HOLES AND INDOOR LUGS TO HAVE INSPECTION HOLES.

ABBREVIATIONS

| | | | |
|-------|----------------------------|--------|--------------------------|
| AGL | ABOVE GRADE LEVEL | MFR | MANUFACTURER |
| AMSL | ABOVE MEAN SEA LEVEL | MGB | MASTER GROUND BAR |
| AWG | AMERICAN WIRE GAUGE | MIN | MINIMUM |
| BLDG | BUILDING | N.T.S. | NOT TO SCALE |
| DWG | DRAWING | (P) | PROPOSED |
| FT | FOOT | PFC | POWER PROTECTION CABINET |
| EMT | ELECTRICAL METALLIC TUBING | RBS | RADIO BASE STATION |
| ELEV | ELEVATION | IN | INCH(ES) |
| EQUIP | EQUIPMENT | INT | INTERIOR |
| EXT | EXTERIOR | INT | INTERIOR |
| FND | FOUNDATION | SF | SQUARE FOOT |
| F | FIBER | TYP | TYPICAL |
| GALV | GALVANIZED | W/ | WITH |
| GPS | GLOBAL POSITIONING SYSTEM | XFMR | TRANSFORMER |
| GND | GROUND | | |
| LTE | LONG TERM EVOLUTION | | |
| MAX | MAXIMUM | | |



PE# 45562-6 Exp: 07/31/2018

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GENERAL NOTES

SHEET NUMBER

GN1

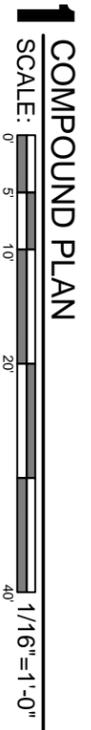
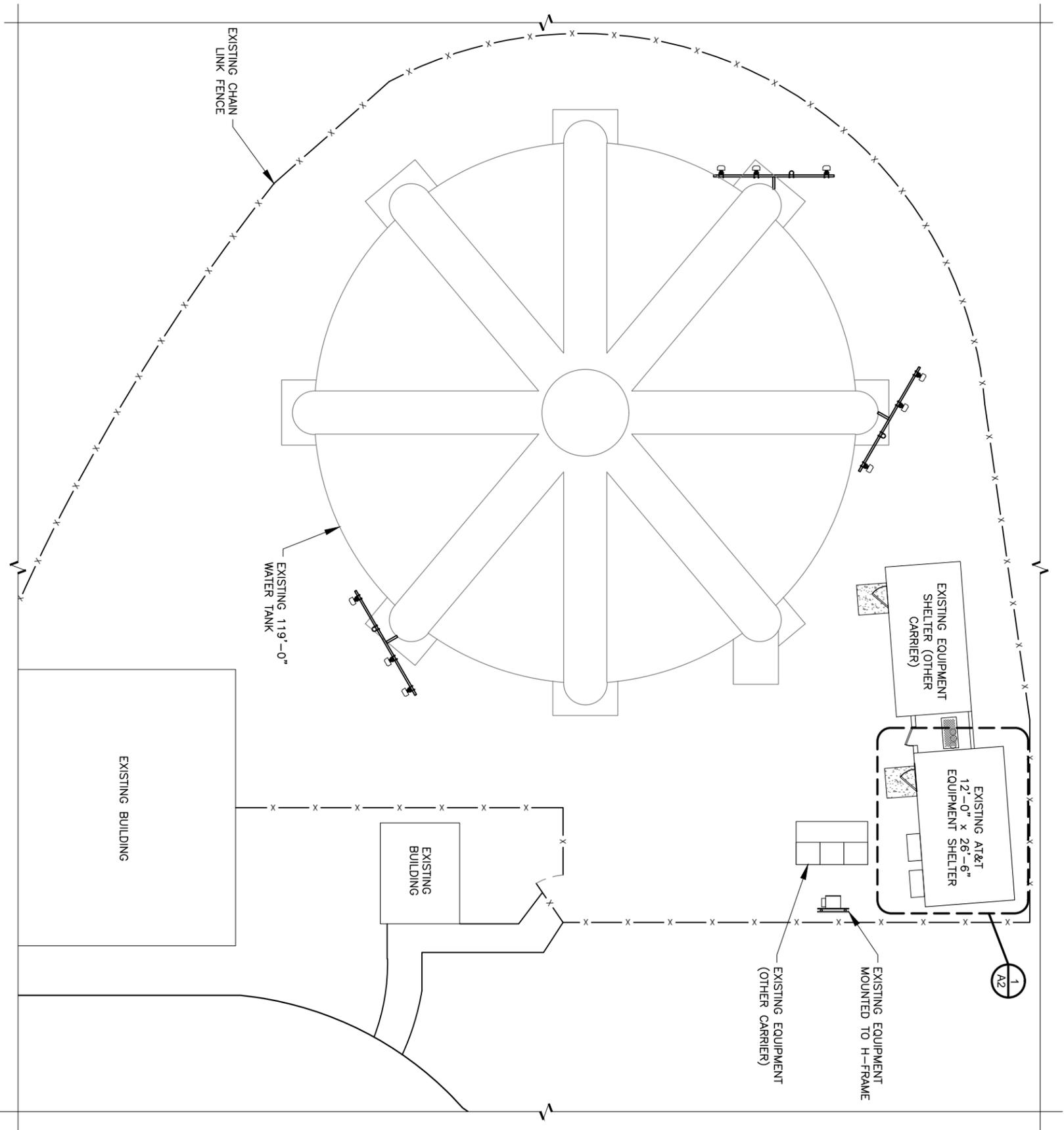
CLISGroup
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 CO# 3677 Exp: 01/31/2018

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at&t
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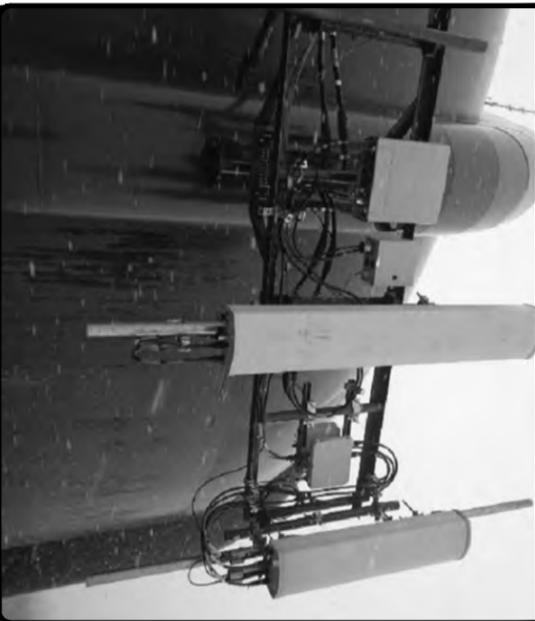
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SITE PHOTO 1



SITE PHOTO 2



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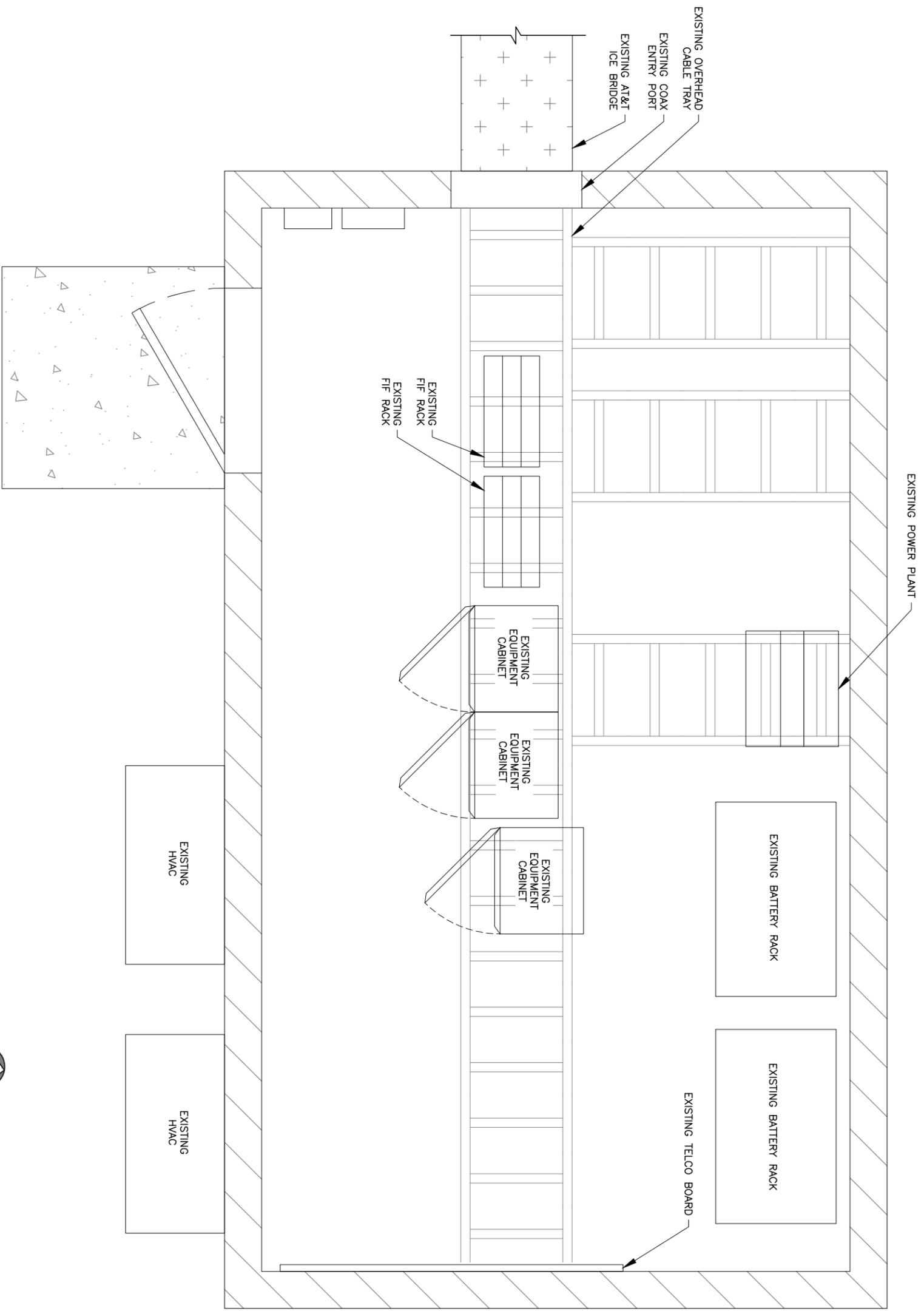


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SHEET TITLE
COMPOUND PLAN

SHEET NUMBER
A1



EXISTING EQUIPMENT PLAN
SCALE: 1/2" = 1'-0"



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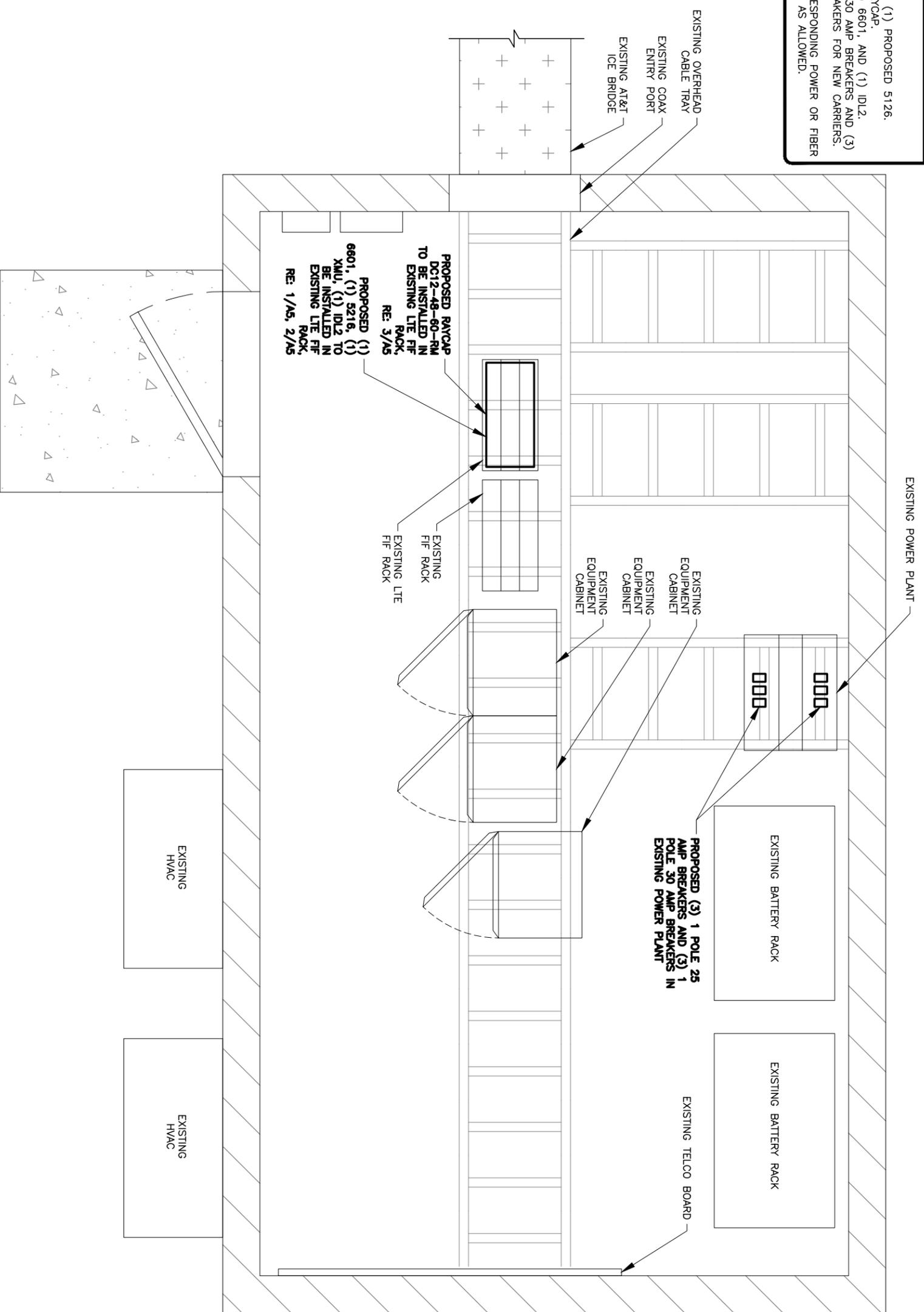
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4740 SPANEM AVE
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SHEET TITLE
**EXISTING
EQUIPMENT PLAN**

SHEET NUMBER
A2

SCOPE OF WORK

- GROUND SOW:
1. REPLACE (1) EXISTING DUS WITH (1) PROPOSED 5126.
 2. INSTALL (1) PROPOSED DC12 RAYCAP.
 3. INSTALL (1) PROPOSED XMU, (1) 6601, AND (1) IDL2.
 4. INSTALL (3) PROPOSED 1 POLE 30 AMP BREAKERS AND (3) PROPOSED 1 POLE 25 AMP BREAKERS FOR NEW CARRIERS.
 5. INSTALL AT&T LOWER FIBER.
 6. DECOMMISSION FC12s AND CORRESPONDING POWER OR FIBER RUNS. REUSE POWER AND FIBER AS ALLOWED.



PROPOSED EQUIPMENT PLAN
SCALE: 0 6" 1' 4' 5' 1/2"=1'-0"



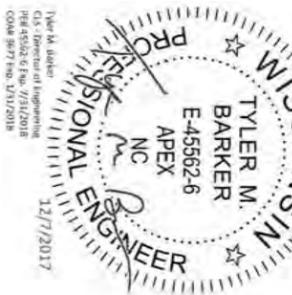
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SHEET TITLE
**PROPOSED EQUIPMENT &
UTILITY PLAN**

SHEET NUMBER
A2.1

LOADING NOTE:

OTHER CARRIERS EQUIPMENT MAY BE OMITTED FOR CLARITY.

TOWER NOTES

WATER TANK IS SHOWN FOR ILLUSTRATION ONLY AND FOR LOCATION OF APPURTENANCE(S). REFER TO WATER TANK SURVEY FOR ALL EXISTING WATER TANK COMPONENTS TO INCLUDE ANTENNAS, LIGHTS, LIGHTNING ROD & WATER TANK HEIGHT.

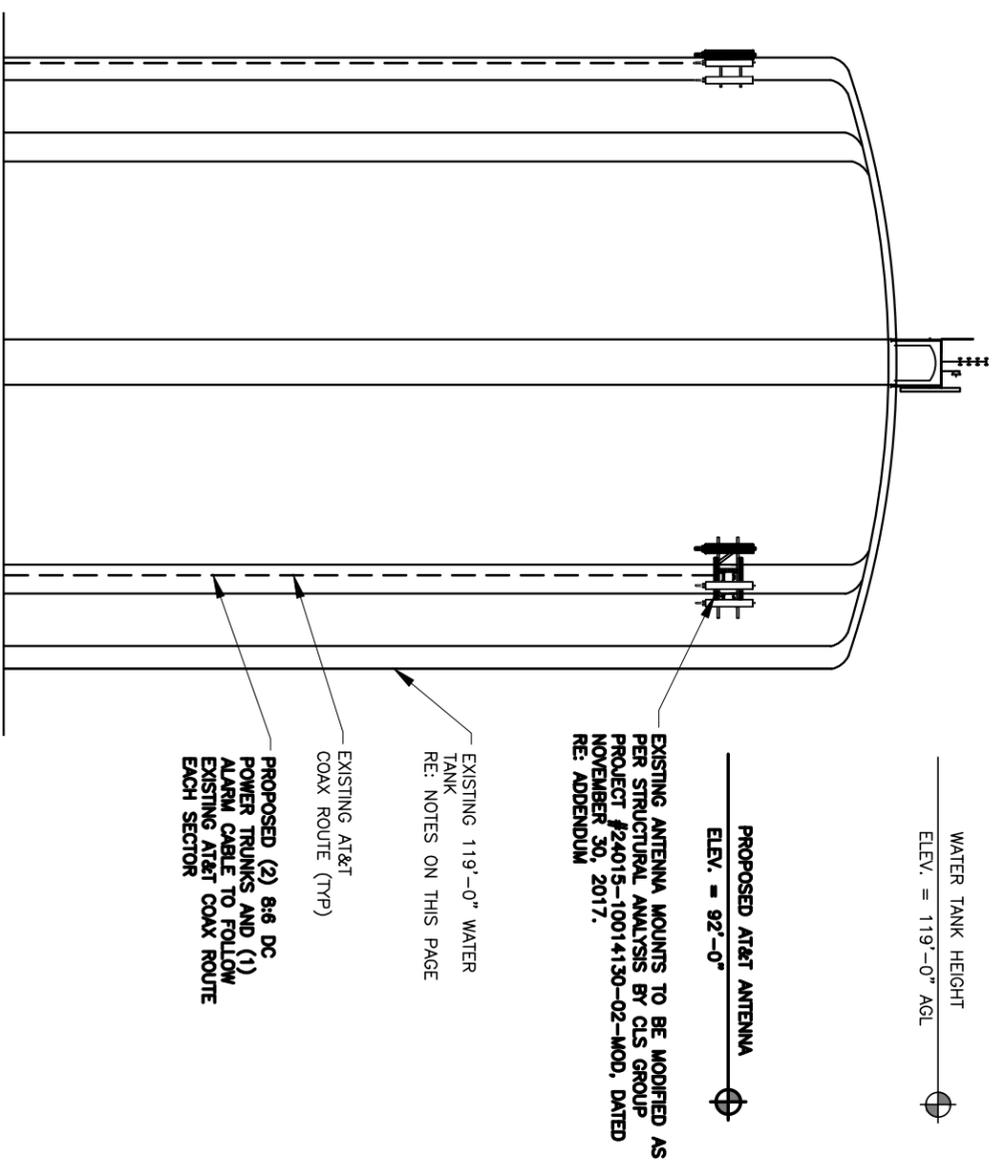
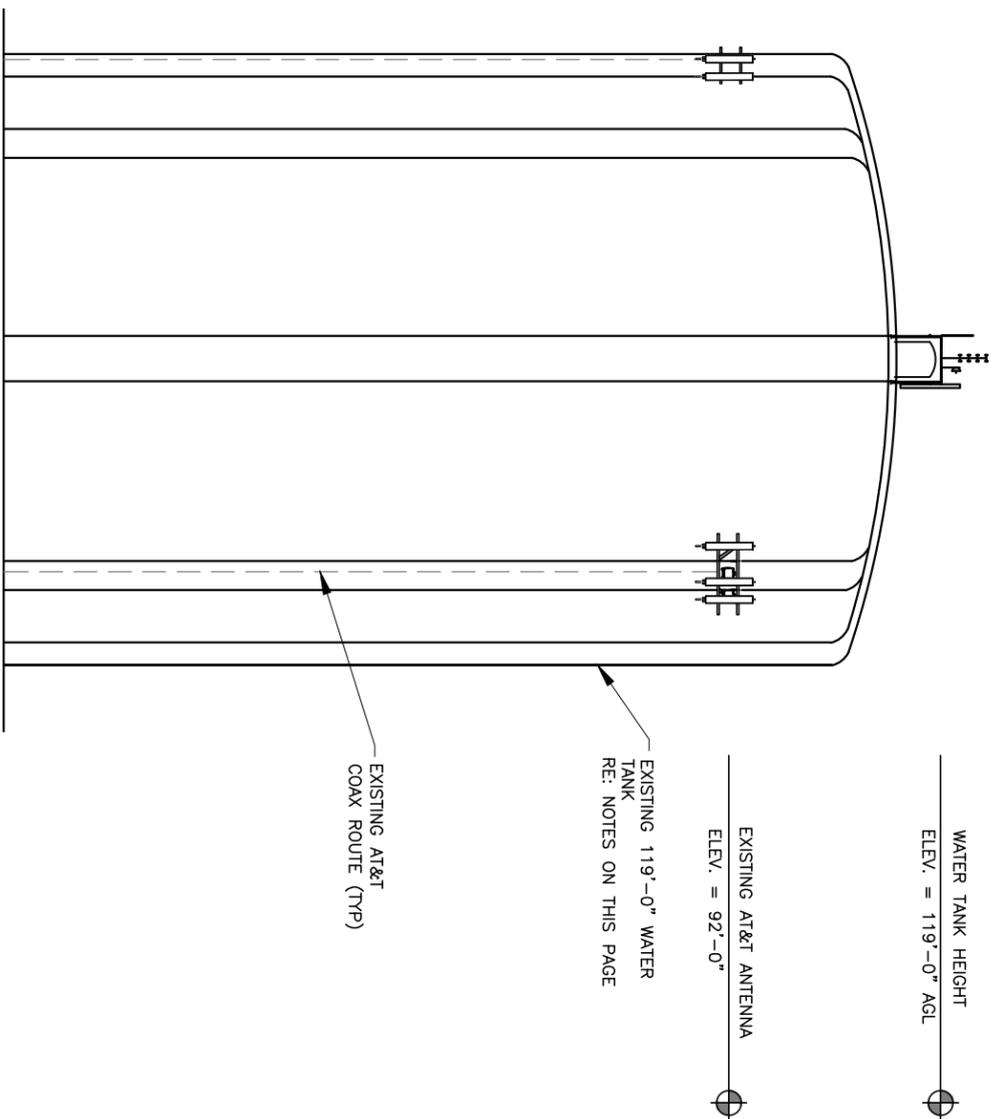
CONTRACTOR(S) TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT. COAX ROUTING MUST BE PER STRUCTURAL ANALYSIS.

PRIOR TO CONSTRUCTION: CONTRACTOR SHALL VERIFY THAT A WATER TANK AND MOUNT STRUCTURAL ANALYSIS, DEPICTING THE LOADING SHOWN, HAS BEEN PERFORMED AND SHOWS A "PASS" OR AN "ACCEPTABLE" RATING, UNDER NO CIRCUMSTANCE WHAT SO EVER SHALL THE PROPOSED EQUIPMENT BE INSTALLED WITHOUT SAID STRUCTURAL ANALYSIS. IF SAID STRUCTURAL ANALYSIS REQUIRES THAT THE WATER TANK AND/OR MOUNT BE MODIFIED, SUCH MODIFICATIONS SHALL BE COMPLETED PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT.

MOUNT AND STRUCTURAL ANALYSIS DONE BY CLS GROUP, PROJECT #24015-10014130-02-MOD, DATED NOVEMBER 30, 2017.

NOTE:

GENERAL CONTRACTORS SHALL MAKE SURE SAFETY CLIMB IS 100% FREE OF COAX AND MOUNTS AFTER INSTALL IS COMPLETE.



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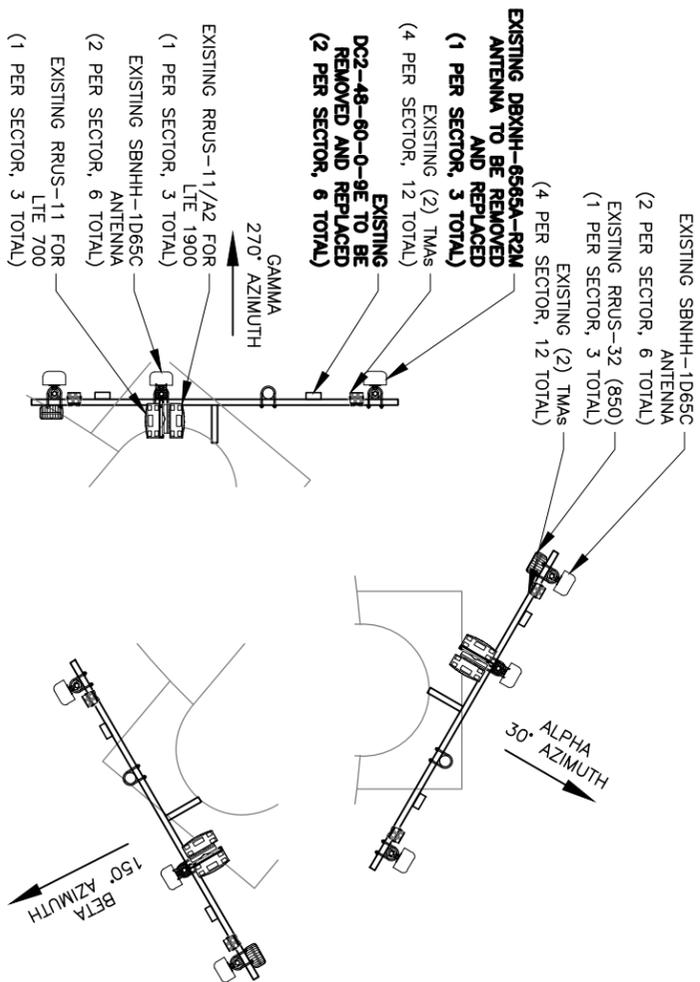
TOWER ELEVATIONS

SHEET NUMBER
A3

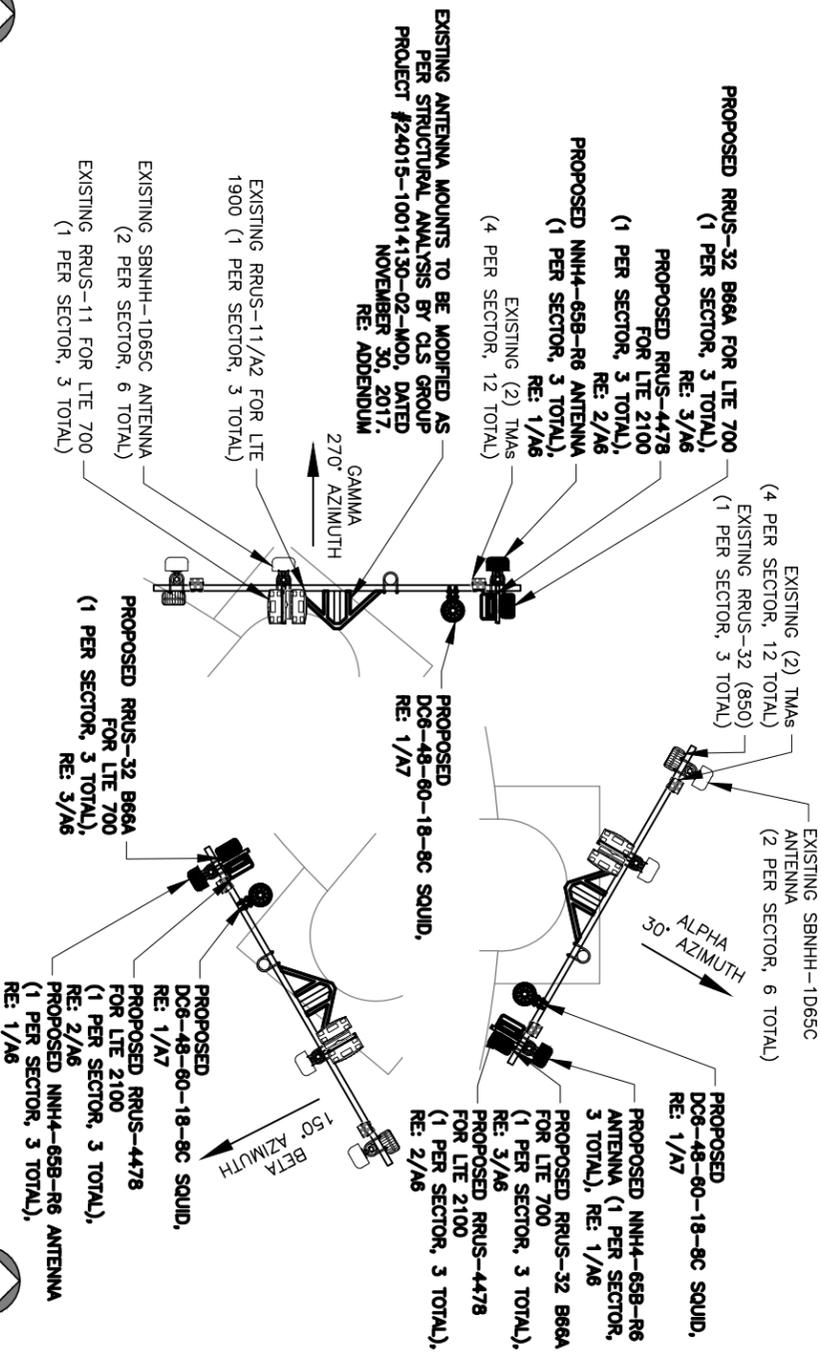
1 EXISTING ELEVATION
SCALE: N.T.S.

2 PROPOSED ELEVATION
SCALE: N.T.S.

EXISTING ANTENNA PLAN
SCALE: N.T.S.



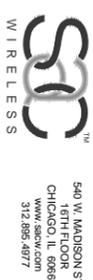
2 PROPOSED ANTENNA PLAN
SCALE: N.T.S.



ANTENNA AND COAXIAL CABLE SCHEDULE
BOLD DENOTES PROPOSED EQUIPMENT

| ANTENNA MARK | SECTOR | DESCRIPTION OF ANTENNAS | ANTENNA ORIENTATION | ANTENNA QUANTITY | RAD CENTER | TMA QUANTITY | COAX/CABLE | SURGE PROTECTION | RRU MODEL | TECHNOLOGY |
|--------------|--------|----------------------------------|---------------------|------------------|------------|-----------------------------------|---|---------------------------------------|---|----------------------|
| A1 | ALPHA | (E) ANDREW SBNHH-1D65C | 30° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (E) (4) COAX | --- | (E) (1) RRUS-32 | UMTS 850 LTE 2300 |
| A2 | ALPHA | (E) ANDREW SBNHH-1D65C | 30° | 1 | 92' | --- | --- | --- | (E) (1) RRUS-11 | LTE 700 LTE 1900 |
| A3 | ALPHA | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A4 | ALPHA | (P) COMMSCOPE NNH4-658-R6 | 30° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (P) (1) 0.82" DC (P) (1) 0.40" FIBER | (P) (1) RAVCAP DC2-48-60-18-9C | (P) (1) RRUS-4478 (P) (1) RRUS-32 B66A | LTE 700 LTE 2100 |
| B1 | BETA | (E) ANDREW SBNHH-1D65C | 150° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (E) (4) COAX | --- | (E) (1) RRUS-32 | UMTS 850 LTE 2300 |
| B2 | BETA | (E) ANDREW SBNHH-1D65C | 150° | 1 | 92' | --- | --- | --- | (E) (1) RRUS-11 | LTE 700 LTE 1900 |
| B3 | BETA | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| B4 | BETA | (P) COMMSCOPE NNH4-658-R6 | 150° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (P) (1) 0.82" DC (P) (1) 0.40" FIBER | (P) (1) RAVCAP DC2-48-60-18-9C | (P) (1) RRUS-4478 (P) (1) RRUS-32 B66A | LTE 700 LTE 2100 |
| G1 | GAMMA | (E) ANDREW SBNHH-1D65C | 270° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (E) (4) COAX | --- | (E) (1) RRUS-32 | UMTS 850 LTE 2300 |
| G2 | GAMMA | (E) ANDREW SBNHH-1D65C | 270° | 1 | 92' | --- | --- | --- | (E) (1) RRUS-11 | LTE 700 LTE 1900 |
| G3 | GAMMA | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| G4 | GAMMA | (P) COMMSCOPE NNH4-658-R6 | 270° | 1 | 92' | (E) (2) TMAs (E) (2) DIPLEXERS | (P) (1) 0.82" DC (P) (1) 0.40" FIBER | (P) (1) RAVCAP DC2-48-60-18-9C | (P) (1) RRUS-4478 (P) (1) RRUS-32 B66A | LTE 700 LTE 2100 |

3 ANTENNA AND COAX SCHEDULE
SCALE: N.T.S.



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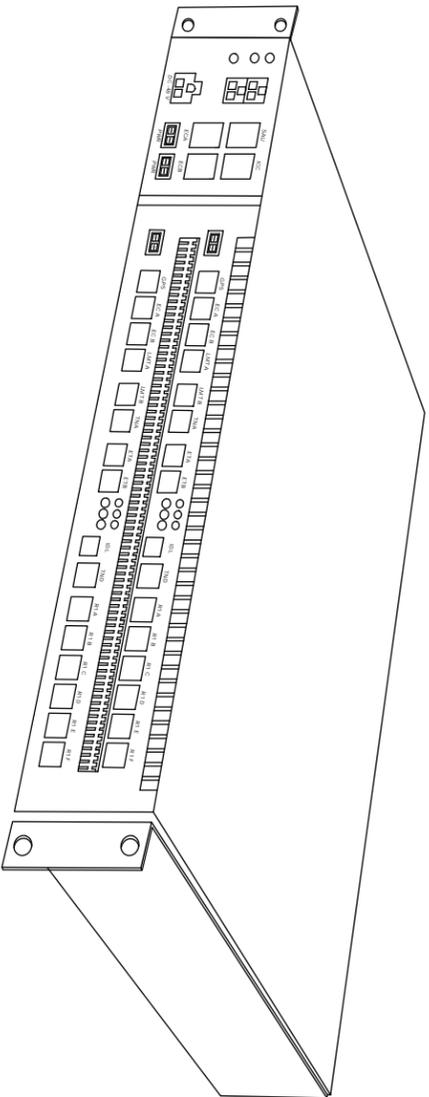
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FA#: 10014130
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MADISON, WI 53716

SHEET TITLE
ANTENNA PLANS / ANTENNA & COAX SCHEDULE

SHEET NUMBER
A4

1 RBS 6601 MAIN UNIT

SCALE: N.T.S.



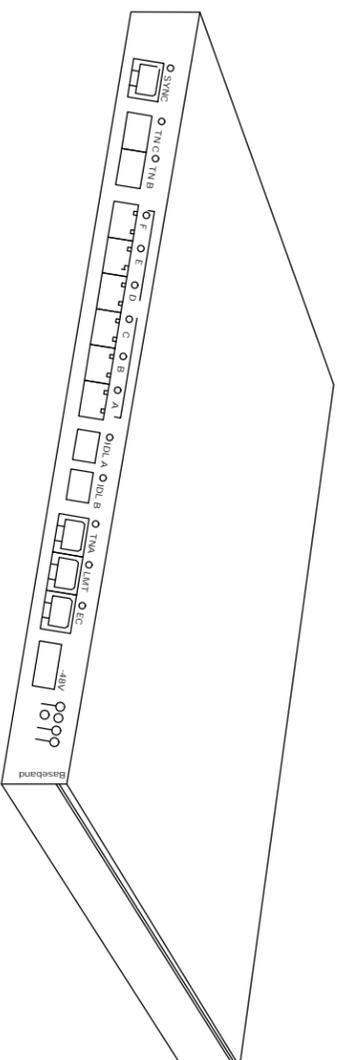
RE: GN22/GN1

ERICSSON RBS 6601 MAIN UNIT

POWER DISTRIBUTION: -48 VDC TO DIGITAL UNITS
 DIMENSIONS: 2.6" X 18.98" X 13.78"
 H X W X D (IN)
 (EXCLUDING BRACKETS AND CONNECTORS)
 WEIGHT, KG(LBS): 10.5 (23.15)
 MOUNTING: 19" RACK INSIDE SHELTER

2 ERICSSON BASEBAND 5216

SCALE: N.T.S.



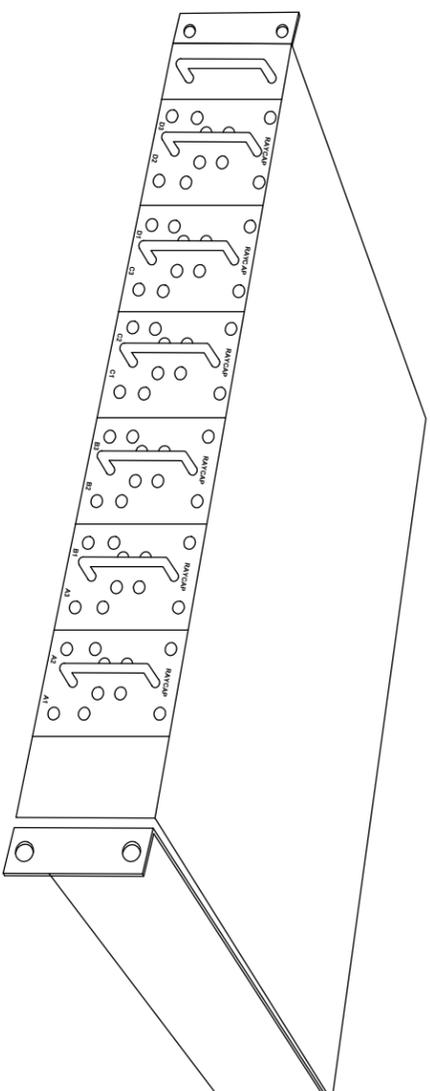
RE: GN22/GN1

ERICSSON BASEBAND 5216

POWER DISTRIBUTION: -48 VDC TO DIGITAL UNITS
 DIMENSIONS: 1.2" X 13.8" X 11.0"
 H X W X D (IN)
 (EXCLUDING BRACKETS AND CONNECTORS)
 WEIGHT, KG(LBS): <9 (<4)
 MOUNTING: 19" RACK INSIDE SHELTER

3 DC12-48-60-RM SPECIFICATIONS

SCALE: N.T.S.



RE: GN22/GN1

RAYCAP DC12-48-60-RM

MANUFACTURER: RAYCAP
 MODEL: DC12-48-60-RM
 DIMENSIONS: 3.48" X 17.23" X 15.40"
 H X W X D (IN)
 WEIGHT (LBS): 27LBS
 NOMINAL OPERATION: 48 VDC
 VOLTAGE: 700 VOLTS
 VOLTAGE PROTECTION: 700 VOLTS
 RATING



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EQUIPMENT DETAILS

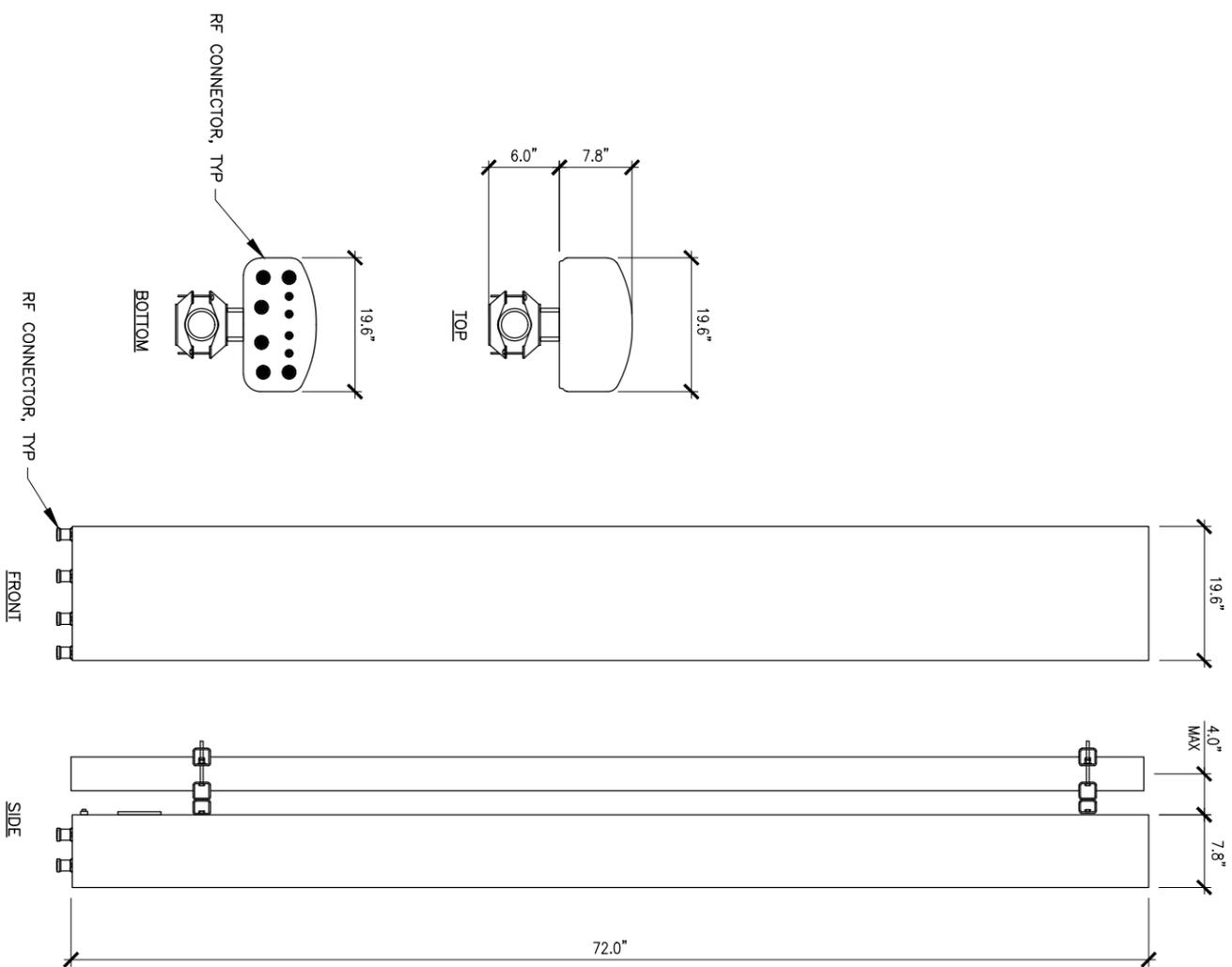
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A5

ANTENNA INFORMATION
PULLED FROM PRELIMINARY
PRODUCT DATA SHEET

COMMSCOPE NNH4-65B-R6

MANUFACTURE: COMMSCOPE
MODEL: NNH4-65B-R6
DIMENSIONS: 72.0" X 19.6" X 7.8"
H X W X D
WEIGHT: 88.2 LB
FREQUENCY: REFER TO RF DATA SHEET



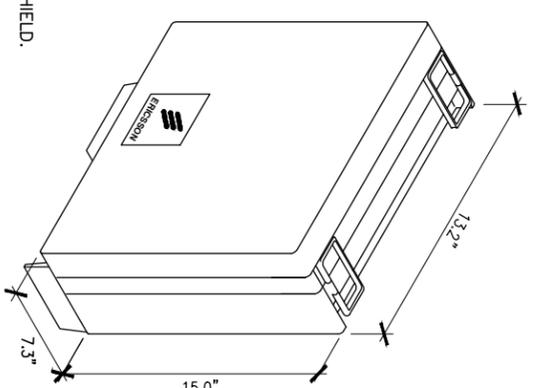
1 ANTENNA SPECIFICATIONS

SCALE: N.T.S.

RE: GN22/GN1

ERICSSON 4478 RRU

MANUFACTURE: ERICSSON
MODEL: RADIO 4478
DIMENSIONS: 15.0" X 13.2" X 7.3"
H X W X D
WEIGHT (LBS): 59.4 LBS
FREQUENCY: REFER TO RF DATA SHEET



NOTE:
RRUS CAN ONLY BE
PAINTED ON SOLAR SHIELD.

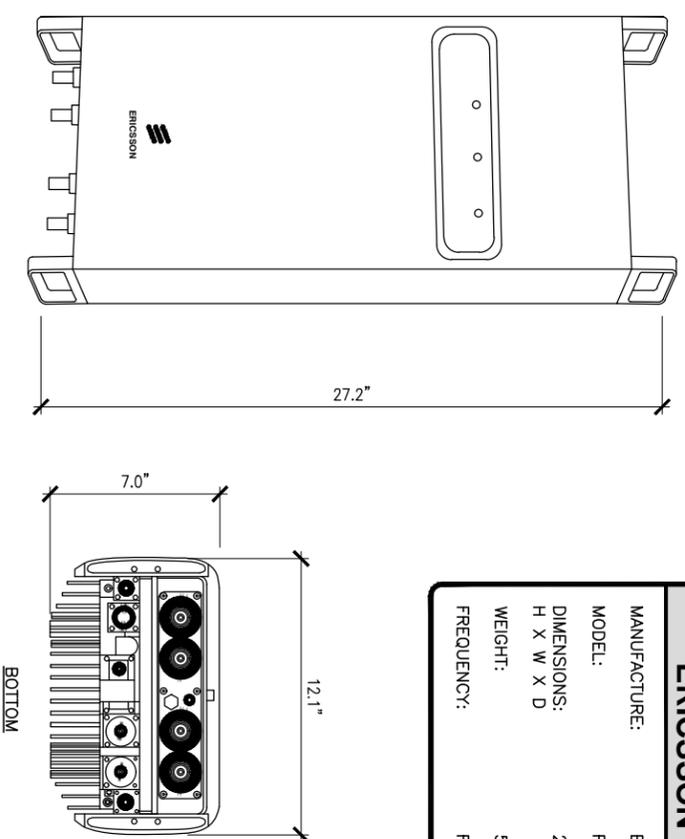
2 REMOTE RADIO UNIT SPECIFICATIONS

SCALE: N.T.S.

RE: GN22/GN1

ERICSSON RRUS-32 B25

MANUFACTURE: ERICSSON
MODEL: RRUS-32 B25
DIMENSIONS: 27.2" X 12.1" X 7.0"
H X W X D
WEIGHT: 53 LB
FREQUENCY: REFER TO RF DATA SHEET



3 REMOTE RADIO UNIT SPECIFICATIONS

SCALE: N.T.S.

RE: GN22/GN1



930 NATIONAL PARKWAY
SHALMBURG, IL 60173



540 W. MADISON ST.
16TH FLOOR
CHICAGO, IL 60661
312.856.4877



609 S. KELLY AVENUE, STE. D
EDMOND, OK 73003
Ph: (405) 348-5460 FAX:(405) 341-4625

COA# 3677 EXP. 01/31/2018

| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 10/06/17 | PRELIMINARY ISSUE | MAM |
| 0 | 12/07/17 | FOR CONSTRUCTION | PMD |

NOT FOR CONSTRUCTION UNLESS
LABELED AS CONSTRUCTION SET



PE# 45562-6 EXP: 07/31/2018

WI0184
EAST MONONA
FA#: 1001-4130
4740 SPANANEM AVE
MADISON, WI 53716

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A6



930 NATIONAL PARKWAY
SCHLAUMBURG, IL 60173

at&t

SITE NAME:

EAST MONONA

FA #/ SITE ID:

10014130 / W10184

PROJECT TYPE:

LTE 4C/ LTE 5C

STRUCTURE TYPE:

119'-0" WATER TANK

PROJECT SCOPE:

MOUNT REINFORCEMENT



930 NATIONAL PARKWAY
SCHLAUMBURG, IL 60173



1250 BARKER RD., GARNER, NC 27529
PH: (405) 348-3440 FAX: (405) 341-4625

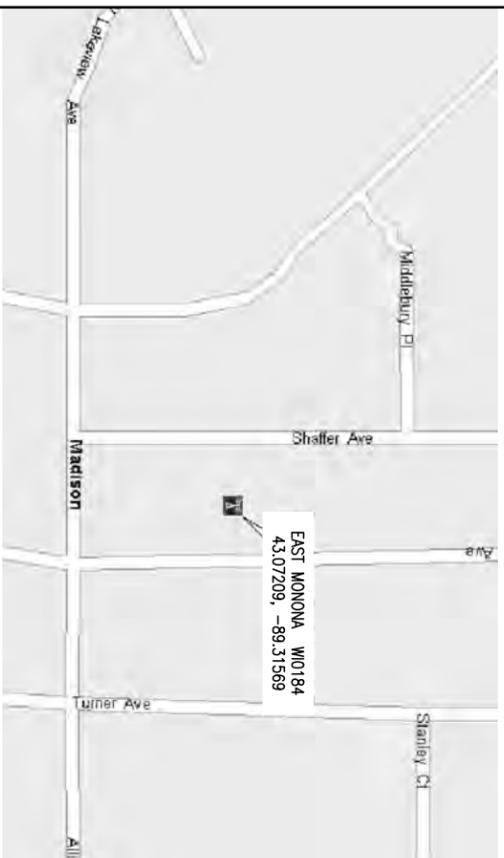
CO# 3677 Exp. 01/31/2018

| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 12/01/17 | PRELIMINARY ISSUE | SEB |
| 0 | 12/01/17 | FOR CONSTRUCTION | SEB |

NOT FOR CONSTRUCTION UNLESS LABELLED AS CONSTRUCTION SET

EXHIBIT C (Page 10 of 19)

LOCATION MAP



STRUCTURE ELEVATION PHOTO



DRIVING DIRECTIONS

FROM O'HARE INTERNATIONAL AIRPORT, CHICAGO, IL:
TAKE I-190 TO I-294, TAKE I-294 TO I-90. TAKE I-90 WEST TOWARDS ROCKFORD/WISCONSIN. STAY ON I-90 (MERGES WITH I-39) INTO WISCONSIN AND CONTINUE ON IT FOR APPROX. 45 MILES TO EXIT AT US-12/US-18 IN MADISON. TAKE US-12 WEST APPROX. 1.50 MILES TO EXIT AT 51/STOUGHTON ROAD. TAKE US-51 NORTH APPROX. 1 MILE TO PFLAUM ROAD. TAKE PFLAUM ROAD WEST APPROX. 0.25 MILE TO SPANEM AVENUE. TAKE SPANEM AVENUE NORTH APPROX. 0.75 MILE. SITE IS ON LEFT (WEST) SIDE OF ROAD AT WATER TANK.

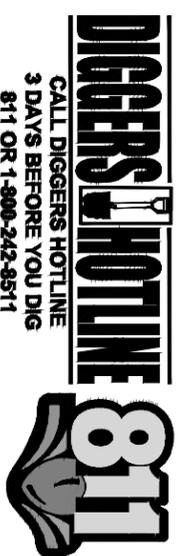
PROJECT TEAM

ENGINEER/ARCHITECT:
CLS GROUP, INC.
1250 BARKER RD.
GARNER, NC 27529
(405) 348-3440

STRUCTURE OWNER:
CITY OF MADISON WATER UTILITY
119 EAST OLIN WATER UTILITY
MADISON, WI 53713
TOM HEIKKINEN
608-266-4651

CUSTOMER/APPLICANT:
AT&T MOBILITY
930 NATIONAL PARKWAY
SCHLAUMBURG, IL 60173

ONE CALL



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

PROJECT INFORMATION

| | |
|---------------------------|--|
| STRUCTURE TYPE: | WATER TANK |
| STRUCTURE HEIGHT: | 119'-0" |
| LATITUDE: | 43.07209 (NAD 83) |
| LONGITUDE: | -89.31569 (NAD 83) |
| ADDRESS: | W10184 - EAST MONONA 4740 SPANEM AVENUE MADISON, WI 53716 |
| COUNTY: | DANE |
| CODE JURISDICTION: | CITY OF MADISON |
| GROUND ELEVATION: | 946' AMSL |

DRAWING INDEX

| SHEET # | SHEET DESCRIPTION | REV # |
|---------|-------------------------------------|-------|
| T-1 | TITLE SHEET & DRAWING INDEX | 0 |
| GN-1 | STRUCTURAL NOTES | 0 |
| N-1 | MODIFICATION INSPECTION NOTES | 0 |
| S-1 | MOUNT VIEWS & MODIFICATION SCHEDULE | 0 |
| S-2 | MODIFICATION DETAIL VIEWS | 0 |

SCOPE OF WORK

1. THIS MODIFICATION PLAN HAS BEEN DESIGNED UTILIZING THE STRUCTURAL ANALYSIS BY CLS GROUP, REPORT #24015-10014130-02-MOD, DATED NOVEMBER 30, 2017.
2. FULL MODIFICATION SCHEDULE CAN BE FOUND ON S-1.
3. CONTRACTOR SHALL SCHEDULE A SITE VISIT TO CONFIRM ALL EXISTING STRUCTURE DIMENSIONS, SITE CONSTRAINTS, PROPOSED REINFORCING DIMENSIONS, THE CLEARANCES OF THE PROPOSED REINFORCING, EXISTING FOUNDATION INFORMATION, EXISTING SITE UTILITIES, AND ALL OTHER INFORMATION NECESSARY TO PERFORM THE WORK ON THESE DRAWINGS IN ORDER TO ELIMINATE THE RISK OF RFIS ONCE CONSTRUCTION AND FABRICATION HAVE BEGUN. THE CONTRACTOR SHALL NOT BEGIN FABRICATION OR CONSTRUCTION PRIOR TO PERFORMING THIS SITE VISIT AND VALIDATING THE INFORMATION ON THESE DRAWINGS AND ANY ADDITIONAL INFORMATION THE CONTRACTOR NEEDS TO PERFORM THE WORK.
4. THE CONTRACTOR SHALL PERFORM THIS PRE-CONSTRUCTION WORK AND REPORT ALL DISCREPANCIES TO THE CUSTOMER AND THE ENGINEER OF RECORD OR BE LIABLE FOR THE LABOR & MATERIALS FOR DISCREPANCIES NOT CAUGHT BY THE CONTRACTOR'S DUE DILIGENCE SITE VISIT.

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

STRUCTURAL CODE: IBC 2009
TA-222-G

SHEET TITLE

TITLE SHEET & DRAWING INDEX

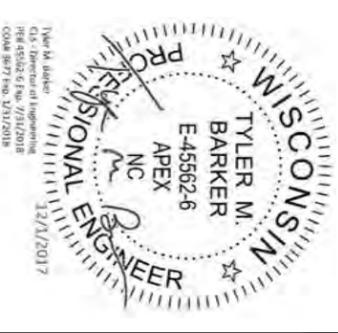
SHEET NUMBER

T-1

W10184

EAST MONONA
FA#: 10014130
4740 SPANEM AVENUE
MADISON, WI 53716

PE# 45562-6 EXP. 07/31/2018



1

2

3

5

GENERAL NOTES

- THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF TIA/EIA-222 ASCE 7, AWS, AISC, AND AWS. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE-MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.
- ALL MATERIALS UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS.
- ALL PRODUCT OR MATERIAL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE ORIGINAL DESIGN CRITERIA, DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
- PROVIDE STRUCTURAL STEEL SHOP DRAWING(S) TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
- UNLESS NOTED OTHERWISE, ALL NEW MEMBERS AND REINFORCING SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.
- ANY CONTRACTOR-CAUSED DAMAGE TO PROPERTY OF THE LAND OWNER, PROPERTY OF THE STRUCTURE OWNER, PROPERTY OF THE CUSTOMER, SITE FENCING OR GATES, ANY AND ALL UTILITY AND/OR SERVICE LINES, SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE REPAIRED OR REPLACED AT THE SOLE COST OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED BY THE CONTRACTOR OR SUBCONTRACTOR AS APPROVED BY THE ENGINEER OF RECORD AND LAND OWNER. DAMAGE TO EQUIPMENT OR PROPERTY OF ANY KIND BELONGING TO OTHER COMPANIES (BESIDES THE INDICATED CUSTOMER) SHALL BE ADDRESSED BY THE CONTRACTOR WITH THE COMPANIES THAT OWN THE DAMAGED ITEMS.

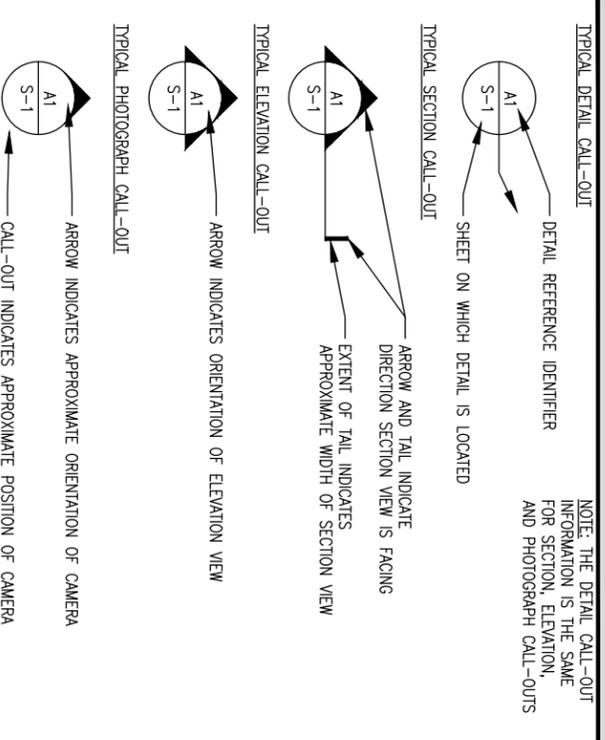
STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:
 - STRUCTURAL STEEL SHAPES, PLATES AND BARS (EXCEPT W-SHAPES) – ASTM A36, F_y=36 KSI
 - PIPES – ASTM A53, GRADE B, F_y=35 KSI
 - HSS-SHAPES – ASTM A500, GRADE B, F_y=42 KSI (ROUND) F_y=46 KSI (SQUARE & RECTANGULAR)
 - ANCHOR & ALL-THREAD RODS – ASTM F1554, GRADE 55
 - STRUCTURAL BOLTS ½" Ø AND LARGER – ASTM A325
 - STRUCTURAL BOLTS SMALLER THAN ½" Ø – DIMENSIONS: ASME B18.2.1 | MATERIAL: SAE J429 GRADE 5 | THREADING: ASME B1.1, UNC, CLASS 2A | FINISH: HOT-DIP GALVANIZED OR ZINC-DIP GALVANIZED FOR ZINC-PLATED
 - SHEET METAL SCREWS – DIMENSIONS: ASME B18.6.3 | MATERIAL: SAE J933 | FINISH: HOT-DIP GALVANIZED OR ZINC-PLATED
 - NUTS FOR BOLTS/ALL-THREAD – ASTM A563 (THREADING TO MATCH BOLT)
 - WASHERS FOR BOLTS/ALL-THREAD – ASTM F436
 - W & WT SHAPES – ASTM A36, F_y=36 KSI
 - ALTERNATE SPEC: ASTM A992 (IF OTHER SPEC IS UNAVAILABLE)
- STRUCTURAL BOLTS SHALL CONFORM TO THIS NOTE. ALL BOLT HOLES SHALL BE STANDARD SIZE BOLT HOLES PER AISC 360, UNLESS OTHERWISE NOTED. ALL HOLES SHALL BE SHOP DRILLED OR SUB-PLUNGED AND BEAMED. BURNING OF HOLES IS NOT PERMITTED. WHERE SLOTTED OR OVERSIZE HOLES ARE SPECIFIED ON THE DRAWINGS, EXTRA-THICK ASTM F436 PLATE WASHERS SHALL BE USED (¾" MINIMUM THICKNESS) WITH A DIAMETER SUITABLE TO COVER THE EXTENTS OF THE SLOT OR HOLE. BOLTS SHALL BE HEAVY-HEX WHERE AVAILABLE IN THE SIZE AND GRADE SPECIFIED, OTHERWISE BOLTS SHALL BE HEX HEAD CAP SCREWS.
- ALL STEEL HARDWARE, INCLUDING ADHESIVE OR EMBEDDED ANCHOR BOLTS AND THEIR ACCESSORIES, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 (EXCEPT BOLTS SMALLER THAN ½" SHALL CONFORM TO F1941 WHERE HOT-DIP GALVANIZED BOLTS ARE NOT AVAILABLE). ALL STEEL MEMBERS, INCLUDING WELDEMENTS, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. REPAIR DAMAGE TO GALVANIZED COATINGS USING ASTM A780 PROCEDURES WITH A ZINC RICH PAINT (SUCH AS ZNC GALVALITE) FOR GALVANIZING DAMAGED BY HANDLING, TRANSPORTING, CUTTING, WELDING, OR BOLTING. DO NOT HEAT SURFACES TO WHICH REPAIR PAINT HAS BEEN APPLIED. CALL OUT HOLES REQUIRED FOR HOT-DIP GALVANIZING ON SHOP DRAWINGS.
- WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES SHALL BE E70XX, UNLESS OTHERWISE NOTED. PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE OF 3/16 INCH OR OF A SIZE EQUAL TO THE THICKNESS OF THE THINNER MATERIAL BEING JOINED (WHICHEVER IS LESS). FOR ACUTE OR OBTUSE JOINT ANGLES, THE FILLET WELD LEG SIZE SHALL BE ADJUSTED AS REQUIRED TO MAINTAIN THE EFFECTIVE THROAT OF A 3/16 INCH FILLET WELD IN A 90° JOINT. ALL WELD SIZES SHOWN IN INCHES.
- PRIOR TO WELDING, THE CONTRACTOR SHALL SUBMIT CERTIFICATION FOR EACH WELDER STATING THE TYPE OF WELDING AND POSITIONS QUALIFIED FOR, THE CODE AND PROCEDURE QUALIFIED UNDER, DATE QUALIFIED, AND THE FIRM AND INDIVIDUAL CERTIFYING THE QUALIFICATION TESTS. THIS INFORMATION SHALL BE SUBMITTED TO THE MODIFICATION INSPECTOR (SEE SHEET S-003) AS WELL AS ANY THIRD-PARTY CERTIFIED WELD INSPECTOR (CWI).
- MEMBERS SHALL BE SHOP-FABRICATED AND WELDED TO THE EXTENT PRACTICABLE IN ORDER TO REDUCE FIELD INSTALLATION COSTS.

CONTRACTOR NOTES

- PRIOR TO BEGINNING CONSTRUCTION, ALL CONTRACTORS AND SUBCONTRACTORS MUST ACKNOWLEDGE IN WRITING TO STRUCTURE OWNER THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW STRUCTURE OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND STRUCTURE/TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGEMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OR CLIMBING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR STRUCTURE OWNER (ON COMPANY LETTERHEAD AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM ANY SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO THE STRUCTURE OWNER.
- IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, THE ENGINEER OF RECORD SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF THE DEVIATION.
- THE CONTRACTOR SHALL SOLICIT AND HIRE THE SERVICES OF A QUALIFIED MODIFICATION INSPECTOR PRIOR TO BEGINNING CONSTRUCTION. THE MODIFICATION INSPECTOR MAY BE AN EMPLOYEE OF THE CONTRACTOR'S FIRM, HOWEVER THE INSPECTOR'S ONLY DUTIES SHALL BE INSPECTION, TESTING, AND REPORT CREATION AS REQUIRED ON THE "MODIFICATION INSPECTION NOTES" SHEET. THE INSPECTOR SHALL BE QUALIFIED AS A REGISTERED PROFESSIONAL ENGINEER (PE) OR AS AN ENGINEERING INTERN (EI) OR ENGINEER IN TRAINING (EIT) UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER (PE). IT IS ALSO ACCEPTABLE FOR THE CONTRACTOR TO SUBCONTRACT THE MODIFICATION INSPECTOR DUTIES TO A THIRD PARTY FIRM MEETING THE ABOVE REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND TOWER OWNER OF THE PLANNED CONSTRUCTION & INSPECTION SCHEDULE, AS WELL AS ANY CHANGES TO THE SCHEDULE, WITHIN TWO BUSINESS DAYS OF THE COMPLETION OF THE SCHEDULE OR SCHEDULE REVISION BOTH PRIOR TO BEGINNING CONSTRUCTION AND DURING CONSTRUCTION AS THE SCHEDULE CHANGES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD WHEN PHASES OF CONSTRUCTION HAVE BEEN MOVED UP AND SHALL GIVE THE ENGINEER ADEQUATE NOTICE SO THAT THE ENGINEER OF RECORD MAY, AT THEIR DISCRETION, INSPECT PORTIONS OF THE WORK THAT ARE DETERMINED CRITICAL TO THE INTEGRITY OF THE STRUCTURE. FAILURE TO PROVIDE THIS NOTICE MAY RESULT IN REJECTION OF THE CONTRACTOR'S WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ENGINEER OF RECORD AND THE STRUCTURE OWNER WHEN THE WORK HAS BEEN COMPLETED WITHIN 2 BUSINESS DAYS OF THE COMPLETION OF THE WORK AND ASSOCIATED MODIFICATION INSPECTIONS & TESTING.
- IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE. THIS INCLUDES PROVIDING THE NECESSARY CERTIFICATIONS TO THE STRUCTURE OWNER AND ENGINEER INCLUDING BUT NOT LIMITED TO TOWER CLIMBER AND RESCUE CLIMBER CERTIFICATIONS, QUALIFIED WELDER CERTIFICATES, CERTIFIED WELDING INSPECTOR CREDENTIALS, ET CETERA.
- THESE DRAWINGS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES AND PROCEDURES.
- CONTRACTOR SHALL WORK WITHIN THE LIMITS OF THE STRUCTURE OWNER'S PROPERTY OR LEASE AREA AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SYMBOLS AND CALL-OUTS



STANDARD ABBREVIATIONS

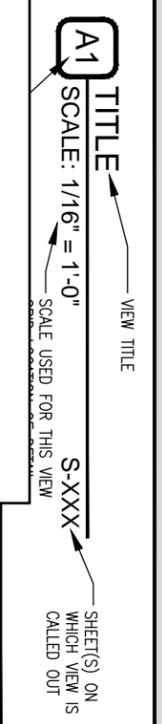
| | | | |
|------------|--------------------------------|------|--------------------------|
| AFF | ABOVE FINISHED FLOOR | MAS | MASONRY |
| ARCH | ARCHITECT, -URAL | MLT | MATERIAL |
| BLDG | BUILDING | MAX | MAXIMUM |
| BOD | BOTTOM OF DECK | MECH | MECHANICAL |
| BOT | BOTTOM | MFR | MANUFACTURER |
| BRTG | BRAZING | MIN | MINIMUM |
| BRDG | BRIDGING | MOD | MODIFICATION |
| C | CHANNEL | MPH | MILES PER HOUR |
| CL | CENTER LINE | MRI | MEAN RECURRENCE INTERVAL |
| CLR | CLEAR | # | NUMBER |
| CMU | CONCRETE MASONRY UNIT | N/C | NOT TO SCALE |
| CONC | CONCRETE | OC | ON CENTER |
| CONT | CONTINUOUS | OPH | OPPOSITE HAND |
| DIA (OR) Ø | DIAMETER | OPNG | OPENING |
| DWGS | DRAWINGS | PC | PIECE |
| EA | EACH | PL | PLATE |
| EL | ELEVATION | PSF | POUNDS PER SQUARE FOOT |
| EQ. EQUIV | EQUAL, EQUIVALENT | PSI | POUNDS PER SQUARE INCH |
| EW | EACH WAY | REF | REFERENCE |
| EXIST | EXISTING | REFN | REINFORCE, -MENT |
| * OR FT | FEET (DIMENSION) | REQD | REQUIRED |
| f.c | COMPRESSIVE STRESS | REV | REVISION |
| FDN | FOUNDATION | SF | SQUARE FEET |
| FTG | FOOTING | SM | SIMILAR |
| GALV | GALVANIZED | SR | SOLID ROUND (SHAPE) |
| HORIZ | HORIZONTAL | STD | STANDARD |
| HSS | HOLLOW STRUCTURAL SHAPES | T&B | TOP AND BOTTOM |
| KIP | KILOPOUNDS (1000 LBS PER UNIT) | THK | THICKNESS |
| KIP/IN | KIPS PER SQUARE INCH | TOP | TOP OF FOOTING |
| * OR IN | INCH | TOM | TOP OF MASONRY |
| L | ANGLE | TOS | TOP OF STEEL |
| LB | POUND | TRP | TYPICAL |
| LB | LONG LEG HORIZONTAL | UN | UNLESS OTHERWISE NOTED |
| LIV | LONG LEG VERTICAL | VERT | VERTICAL |
| LONG | LONGITUDINAL | W/ | WITH |

BOLT TIGHTENING PROCEDURE

- TIGHTEN BOLTS BY AISC "TURN OF THE NUT" METHOD USING THE CHART BELOW:
 - BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS: +1/3 TURN BEYOND SWUG TIGHT
 - BOLT LENGTHS UP TO AND INCLUDING FOUR TO EIGHT DIAMETERS: +1/2 TURN BEYOND SWUG TIGHT
 - BOLT LENGTHS OVER EIGHT AND UP TO TWELVE DIAMETERS: +2/3 TURN BEYOND SWUG TIGHT
- SPICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8(d)(1) OF THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS AS FOLLOWS:
 - *FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND BE TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8(d)(1) THROUGH 8(d)(4).
 - 8(d)(1) TURN-OF-THE-NUT TIGHTENING. BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SWUG TIGHT CONDITION. SWUG TIGHT IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN THE PILES OF A JOINT ARE IN FIRM CONTACT. THIS MAY BE OBTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. SWUG TIGHTENING SHALL PROGRESS SYSTEMATICALLY UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SWUG 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.

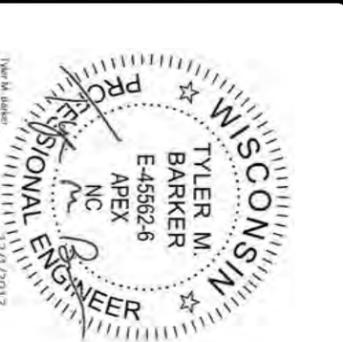


SECTION / ELEVATION / DETAIL VIEW CALLOUTS



| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 12/01/17 | PRELIMINARY ISSUE | SEB |
| 0 | 12/01/17 | FOR CONSTRUCTION | SEB |

NOT FOR CONSTRUCTION/UNLESS LABELED AS CONSTRUCTION SET



PE# 45562-6 EXP: 07/31/2018

WI0184

EAST MONONA

FA#: 10014130

4740 SPAANEM AVENUE

MADISON, WI 53716

SHEET TITLE

STRUCTURAL NOTES

SHEET NUMBER

GN-1

| PRE-CONSTRUCTION INSPECTION CHECKLIST | |
|---|--|
| CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO) | INSPECTION REPORT ITEM |
| ✓ | MODIFICATION INSPECTION CHECKLIST |
| ✓ | SHOP DRAWINGS APPROVED BY ENGINEER OF RECORD (LATEST REVISION) |
| ✓ | FABRICATION INSPECTION |
| | FABRICATOR'S CERTIFIED WELD INSPECTOR (CWI) |
| | FABRICATOR'S QUALIFIED PERSONNEL FOR WELDING |
| ✓ | MATERIAL TEST REPORT(S) / MILL CERTIFICATE(S) |
| | FABRICATOR'S NON-DESTRUCTIVE TESTING (NDT) TECHNICIAN |
| ✓ | PACKING SLIPS FOR STRUCTURAL MATERIALS |

| CONSTRUCTION INSPECTION CHECKLIST | |
|---|---|
| CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO) | INSPECTION REPORT ITEM |
| ✓ | CONSTRUCTION INSPECTIONS |
| | FOUNDATION INSPECTIONS |
| | CONCRETE COMPRESSIVE STRENGTH AND SLUMP TESTING RESULTS/CERTIFICATES |
| | ADHESIVE ANCHOR ROD(S) INSTALLATION INSPECTION |
| | BASE PLATE GROUT INSPECTION |
| | THIRD-PARTY CERTIFIED WELD INSPECTION (INCLUDING IBC SPECIAL INSPECTIONS) |
| | SOIL EXCAVATION - DENSITY TESTING, COMPACTION INSPECTION/VERIFICATION, USE OF SUITABLE FILL |
| ✓ | GALVANIZING REPAIR MATERIAL PREPARATION, INSPECTION, & PAINT APPLICATION |
| | GUY WIRE (RE-)TENSION REPORT AND INSPECTION |
| ✓ | PRIME CONTRACTOR'S AS-BUILT DOCUMENTS (SIGNED & DATED) |

| POST-CONSTRUCTION INSPECTION CHECKLIST | |
|---|--|
| CONSTRUCTION AND/OR INSTALLATION INSPECTIONS REQUIRED FOR REPORT? (CHECK=YES, BLANK=NO) | INSPECTION REPORT ITEM |
| ✓ | MODIFICATION INSPECTOR'S ISSUE LIST (INCLUDING CORRECTIVE ACTIONS TAKEN) AND/OR REDLINED RECORD DRAWINGS |
| | POST-INSTALLED ADHESIVE ANCHOR ROD PULL-OUT TESTING |
| ✓ | PHOTOGRAPHS OF MODIFICATIONS (INCLUDE PHOTOS OF BOTH SIDES OF WELDED OR BOLTED CONNECTIONS, OF OVERALL AND DETAIL VIEWS OF INSTALLED MODIFICATIONS, AND BEFORE/AFTER PHOTOS OF ANY ISSUES IDENTIFIED BY THE INSPECTOR) |

GENERAL NOTES

1. THE POST-MODIFICATION INSPECTION IS A VISUAL EXAMINATION OF STRUCTURE MODIFICATIONS AND A REVIEW OF ANY REQUIRED CONSTRUCTION INSPECTIONS, TESTING, AND OTHER DATA TO VERIFY THAT THE MODIFICATIONS ARE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AS DESIGNED BY THE ENGINEER OF RECORD. THE CONTRACT DOCUMENTS INCLUDE THESE MODIFICATION DRAWINGS, ANY PROJECT SPECIFICATIONS REFERENCED TO IN THE PROJECT NOTES OR OTHERWISE PROVIDED WITH THE DRAWINGS, AND OTHER DOCUMENTS OR DRAWINGS PROVIDED WITH THE MODIFICATION DRAWINGS WITH THE INTENT THAT THEY BE USED AS A DESIGN AND OR GUIDELINE FOR CONSTRUCTION.
2. THE POST-MODIFICATION INSPECTION SHALL CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A QUALITATIVE REVIEW OF THE ENGINEERING ASPECTS OF THE DESIGN OR THE DESIGN DRAWINGS. THE MODIFICATION INSPECTOR IS NOT TAKING OWNERSHIP OF THE MODIFICATION DESIGN IN THE PERFORMANCE OF THEIR DUTIES. OWNERSHIP OF THE MODIFICATION DESIGN'S EFFECTIVENESS AND INTENT, AS WELL AS ALL ASSOCIATED RISK, LIES WITH THE ENGINEER OF RECORD AT ALL TIMES.
3. TO ENSURE THAT THE REQUIREMENTS OF THE POST-MODIFICATION INSPECTION ARE MET, IT IS ESSENTIAL THAT COORDINATION BETWEEN THE PRIME CONTRACTOR AND THE MODIFICATION INSPECTOR BEGIN AS SOON AS THE PROJECT IS FUNDED AND WORK ENTERS THE PLANNING STAGE. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL BE PROACTIVE IN IDENTIFYING CONSTRUCTION ISSUES AND COMMUNICATING THESE ISSUES TO EACH OTHER AND TO THE ENGINEER OF RECORD AND STRUCTURE OWNER & CUSTOMER, AS REQUIRED.

INSPECTION AND REPORT RECOMMENDATIONS

1. THE FOLLOWING ARE PROVIDED WITH THE INTENT OF ENHANCING THE EFFECTIVENESS OF THE MODIFICATION INSPECTION AND IMPROVING THE EFFICIENCY OF THE PROCESS OF COLLECTING AND COMPILING THE INFORMATION INTO A USABLE REPORT:
 - 1.1. IT IS RECOMMENDED THAT THE PRIME CONTRACTOR PROVIDE THE MODIFICATION INSPECTOR AT LEAST 5 BUSINESS DAYS NOTICE FOR WHEN THE SITE WILL BE READY FOR THE MODIFICATION INSPECTION.
 - 1.2. THE PRIME CONTRACTOR AND THE MODIFICATION INSPECTOR SHALL COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
 - 1.3. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL BOTH BE PRESENT DURING THE INITIAL INSPECTION IN ORDER TO ALLOW FOR THE REMEDIATION OF DEFICIENCIES DURING THE INSPECTION, AS PRACTICABLE. IT MAY BE PREFERABLE TO KEEP WORK CREWS AND THEIR EQUIPMENT ON-SITE TO REMEDIATE DEFICIENCIES DURING INSPECTIONS.

INSPECTION RESCHEDULING AND CANCELLATION

1. IF THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR HAVE AGREED UPON A TIME AND DATE FOR A GIVEN INSPECTION AND EITHER PARTY RESCHEDULES OR CANCELS THE INSPECTION, THE STRUCTURE OWNER SHALL NOT BE RESPONSIBLE FOR COSTS, FEES, LOST DEPOSITS, OR OTHER EXPENSES INCURRED BY THE PRIME CONTRACTOR, THEIR SUBCONTRACTOR(S), OR THE MODIFICATION INSPECTOR DUE TO THESE SCHEDULING CHANGES. EXCEPTIONS MAY BE MADE IN THE EVENT OF UNCONTROLLABLE SITUATIONS SUCH AS NATURAL DISASTERS, SEVERE WEATHER, OR OTHER CONDITIONS THAT COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

REMEDICATION OF FAILING INSPECTION

1. IN THE EVENT THAT ANY PORTION OF THE MODIFICATION WORK IS DETERMINED TO BE UNSATISFACTORY BY THE MODIFICATION INSPECTOR, THE PRIME CONTRACTOR SHALL WORK WITH THE MODIFICATION INSPECTOR TO CREATE A PLAN OF ACTION THAT WILL EITHER:
 - 1.1. REPAIR THE DEFICIENT WORK TO SATISFACTORY CONDITION AND INCLUDE A SUBSEQUENT RE-INSPECTION OF THE WORK TO VERIFY THAT IT IS SATISFACTORY.
 - 1.2. OR, WITH THE PERMISSION OF THE STRUCTURE OWNER AND/OR CUSTOMER, THE PRIME CONTRACTOR MAY WORK WITH THE ENGINEER OF RECORD TO REVIEW THE AS-BUILT CONDITION OF THE MODIFICATION TO DETERMINE IF IT IS STRUCTURALLY ACCEPTABLE. IF THIS ACTION IS NOT ACCEPTABLE TO ANY PARTY, THE PRIME CONTRACTOR SHALL PROCEED TO REPAIR THE DEFICIENT WORK TO A SATISFACTORY CONDITION.

MODIFICATION INSPECTOR'S RESPONSIBILITIES

1. THE MODIFICATION INSPECTOR SHALL CONTACT THE PRIME CONTRACTOR AS SOON AS THEY HAVE RECEIVED A PURCHASE ORDER OR PAYMENT FOR THIS INSPECTION. THE MODIFICATION INSPECTOR SHALL REVIEW THE REQUIREMENTS OF THE INSPECTION CHECKLIST, SHALL WORK WITH THE PRIME CONTRACTOR TO DEVELOP A SCHEDULE OF NECESSARY ON-SITE INSPECTIONS, AND SHALL DISCUSS ANY SITE-SPECIFIC INSPECTION REQUIREMENTS OR OTHER CONCERNS.
2. THE MODIFICATION INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL PRIME CONTRACTOR INSPECTION AND TEST REPORTS (INCLUDING THOSE OF ASSIGNED SUB-CONTRACTORS), SHALL REVIEW THE REPORTS FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS, SHALL CONDUCT THE NECESSARY ON-SITE INSPECTIONS, AND SHALL COMPLETE AND SUBMIT THE MODIFICATION INSPECTION REPORT.

PRIME CONTRACTOR'S RESPONSIBILITIES

1. THE PRIME CONTRACTOR SHALL CONTACT THE MODIFICATION INSPECTOR AS SOON AS THEY HAVE RECEIVED A PURCHASE ORDER OR PAYMENT FOR THE MODIFICATION INSTALLATION OR PROJECT. THE PRIME CONTRACTOR SHALL REVIEW THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST, SHALL WORK WITH THE MODIFICATION INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, AND SHALL DISCUSS SPECIFIC INSPECTION AND TESTING REQUIREMENTS WITH THE MODIFICATION INSPECTOR IN DETAIL TO OBTAIN A FULL UNDERSTANDING OF THE REQUIRED INSPECTIONS AND TESTING.
2. THE PRIME CONTRACTOR SHALL PERFORM AND RECORD THE TESTING AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST.

PHOTOGRAPHY REQUIREMENTS

1. THE PRIME CONTRACTOR AND MODIFICATION INSPECTOR SHALL, BETWEEN THE EFFORTS OF BOTH PARTIES AND THEIR EMPLOYED PERSONNEL, PROVIDE PHOTOGRAPHS WITH THE INSPECTION REPORT TO INCLUDE THE FOLLOWING:
 - a. GENERAL SITE PHOTOGRAPHS PRE-CONSTRUCTION
 - b. MODIFICATION INSTALLATION PHOTOGRAPHS DURING CONSTRUCTION/ERECTION OPERATIONS AND INSPECTIONS
 - b.1. RAW MATERIALS
 - b.2. PHOTOS OF DETAILED WORK REQUIRED ON THE DRAWINGS (CONNECTIONS, WELDMENTS, FIELD-FABRICATED MEMBERS, ETC)
 - b.3. WELD PREPARATION AND COMPLETED WELD INSPECTION (INCLUDING A FILET WELD SIZE GAUGE, AS APPLICABLE)
 - b.4. BOLT INSTALLATION AND TORQUE/PRETENSION.
 - b.5. FINAL INSTALLED CONDITION (AFTER DEFICIENT CONDITIONS, IF ANY, ARE REMEDIATED).
 - b.6. REPAIR OF SURFACE COATINGS (INCLUDING GALVANIZING AND/OR PAINT COATING)
 - c. POST-MODIFICATION PHOTOGRAPHS OF THE SITE & WORK.
 - d. PHOTOGRAPHS OF THE FINAL STATE OF THE SITE AT CONCLUSION OF THE WORK BY THE PRIME CONTRACTOR, ASSOCIATED SUBCONTRACTORS, AND THE MODIFICATION INSPECTOR.
 - e. OTHER PHOTOS MAY BE INCLUDED AT PRIME CONTRACTOR & MODIFICATION INSPECTOR'S DISCRETION.
- NOTE: PHOTOS OF MODIFICATIONS INSTALLED ON THE STRUCTURE ABOVE AN ELEVATION OF 20 FT SHALL REQUIRE PHOTOS TAKEN FROM THE STRUCTURE AS WELL AS OVERALL PHOTOGRAPHS OF THE MODIFICATIONS TAKEN FROM THE GROUND.

OWNER INSPECTIONS

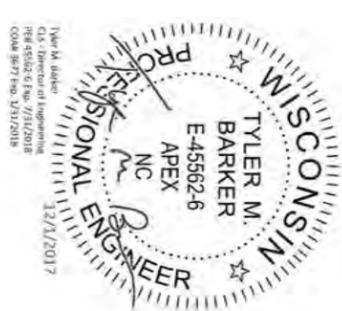
1. THE STRUCTURE OWNER MAY CONDUCT INSPECTIONS TO VERIFY THE QUALITY AND COMPLETENESS OF THE PREVIOUSLY COMPLETED MODIFICATION INSPECTION REPORTS FOR THE MODIFICATION INSTALLATION WORK.
2. INSPECTIONS MAY BE COMPLETED BY A 3RD-PARTY FIRM OF THE STRUCTURE OWNER'S CHOOSING AFTER A MODIFICATION PROJECT IS COMPLETED AND A PASSING MODIFICATION INSPECTION REPORT IS ISSUED.



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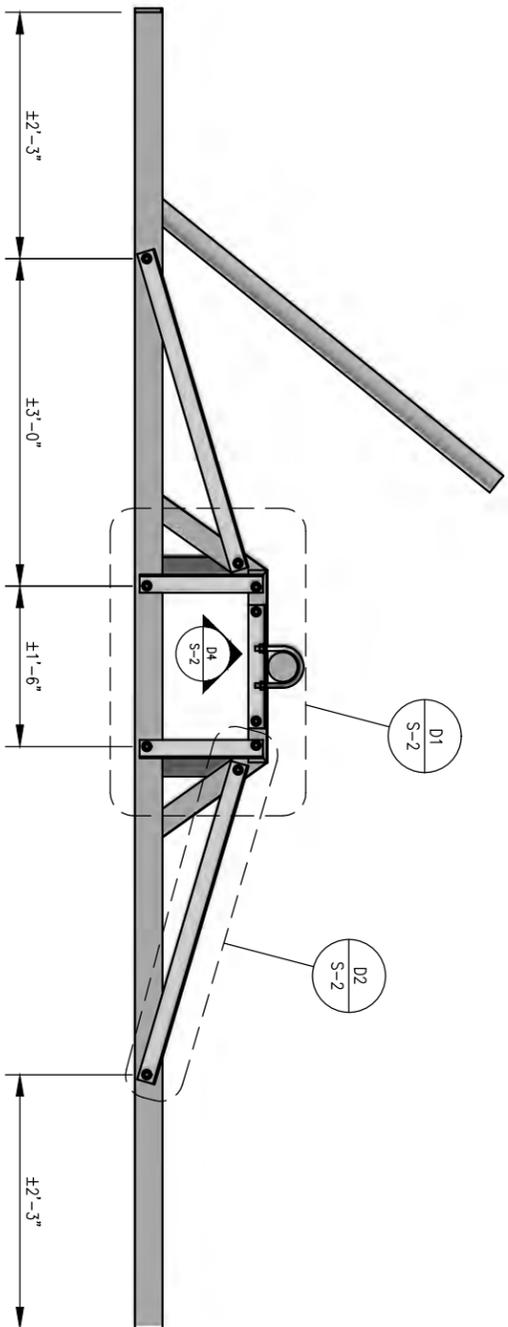


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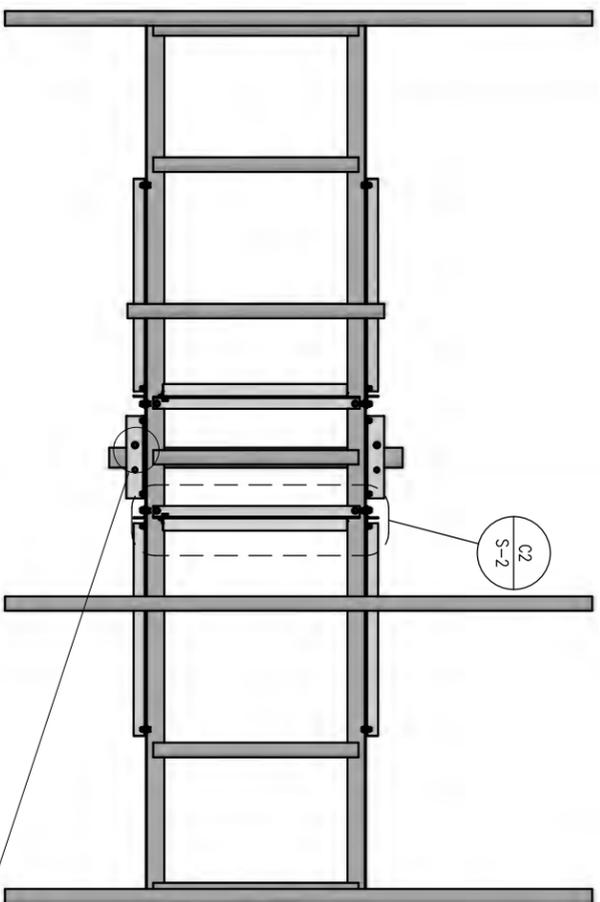
W10184
EAST MONONA
 FA#: 10014130
 4740 SPAANEM AVENUE
 MADISON, WI 53716

SHEET TITLE
MODIFICATION INSPECTION NOTES

SHEET NUMBER
IN-1

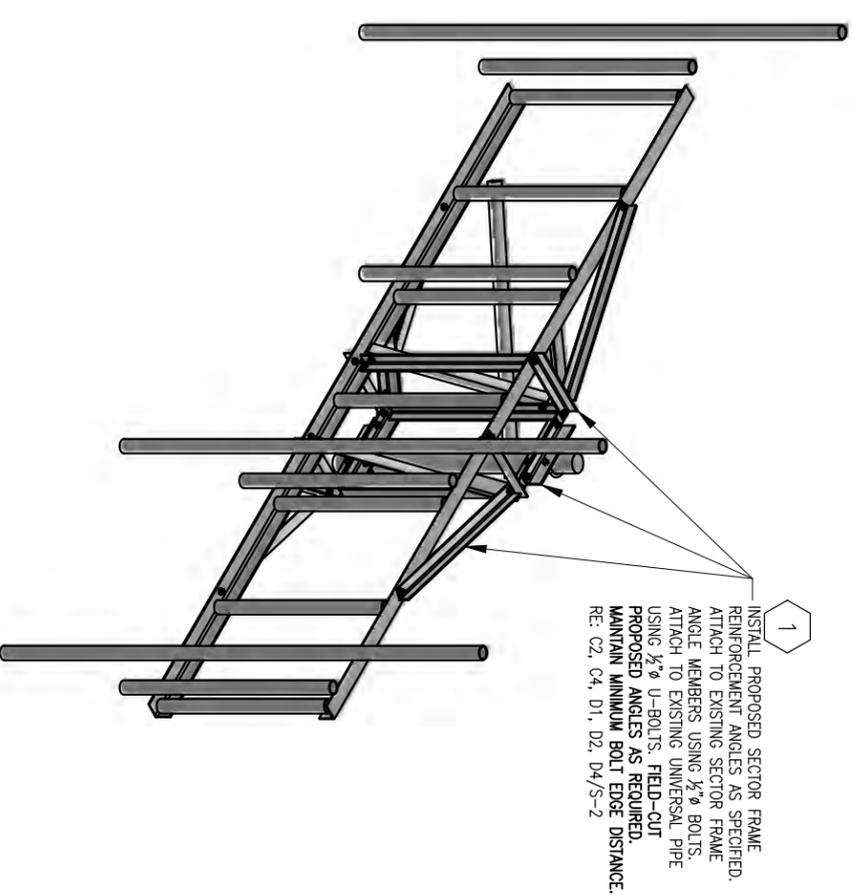


MOUNT PLAN VIEW
SCALE: N.T.S.



D1 MOUNT FRONT ELEVATION VIEW
SCALE: N.T.S.

2 RELOCATE EQUIPMENT, AS REQUIRED, TO FACILITATE INSTALLATION OF PROPOSED MODIFICATIONS ON MOUNT. RE: C1/S-2



D3 MOUNT ISOMETRIC VIEW
SCALE: N.T.S.

TYPICAL MODIFICATION

MODIFICATION SCOPE SHOWN SHALL BE INSTALLED FOR ALL THREE MOUNTS ON TOWER

CONSTRUCTION NOTES

1. SCOPE OF WORK MUST BE COMPLETED AT WIND SPEEDS < 20 MPH.
2. ALL DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHOULD FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK. FIELD CUT MEMBERS AS REQUIRED.
3. ALL HARDWARE SHOULD BE INSTALLED WITH "TURN OF THE NUT" METHOD (RE: GN-1).

MODIFICATION SCHEDULE

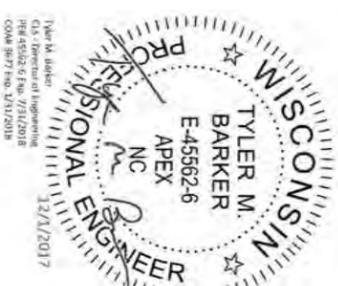
| LABEL | ELEVATION | SCOPE | MATERIAL | NOTES |
|-------|-----------|--|--|------------|
| 1 | ±92'-0" | INSTALL PROPOSED SECTOR FRAME REINFORCEMENT ANGLES AS SPECIFIED. ATTACH TO EXISTING SECTOR FRAME ANGLE MEMBERS USING 1/2" Ø BOLTS. ATTACH TO EXISTING UNIVERSAL PIPE USING 1/2" Ø U-BOLTS. FIELD-CUT PROPOSED ANGLES AS REQUIRED. MAINTAIN MINIMUM BOLT EDGE DISTANCE. | L2x2x3/8 L3x2x3/4 1/2" Ø A325 BOLT 1/2" Ø U-BOLTS | S-1 S-2 |
| 2 | ±92'-0" | RELOCATE EQUIPMENT, AS REQUIRED, TO FACILITATE INSTALLATION OF PROPOSED MODIFICATIONS ON MOUNT. | - | S-1 S-2 |



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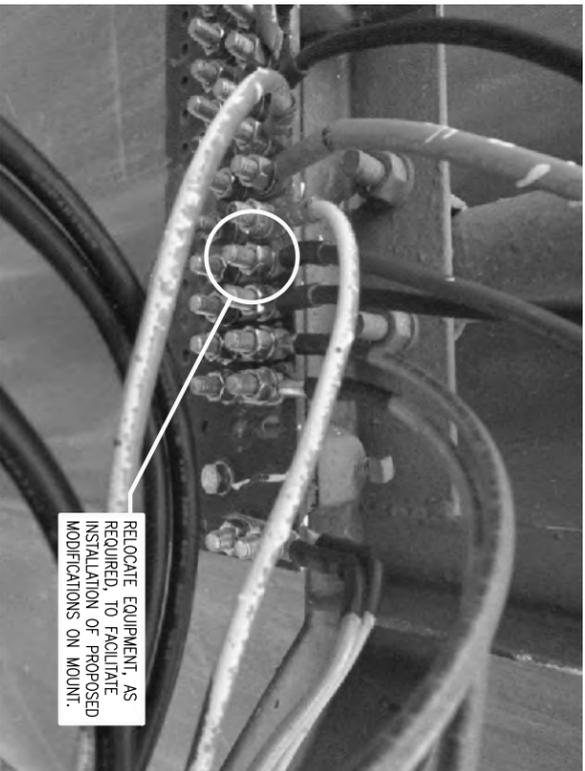


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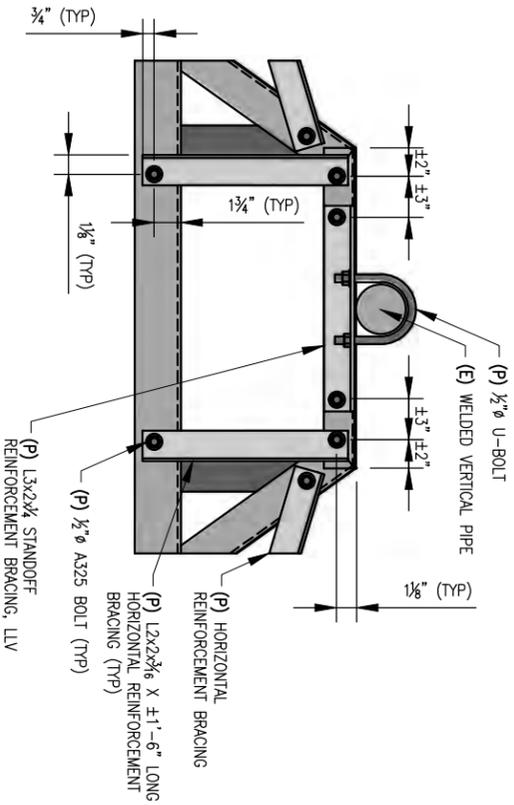
WI0184
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FA#: 10014130
4740 SPAANEM AVENUE
MADISON, WI 53716

SHEET TITLE
MOUNT VIEWS & MODIFICATION SCHEDULE

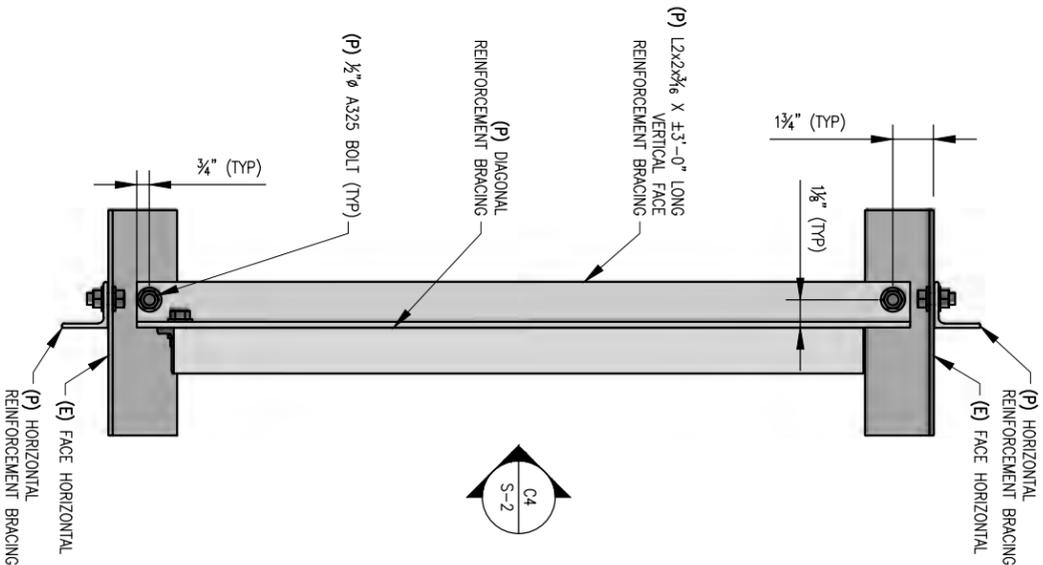
SHEET NUMBER
S-1



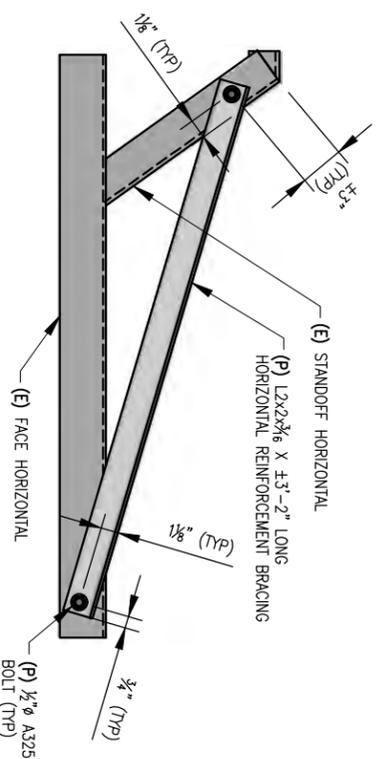
EQUIPMENT RELOCATION PHOTO
SCALE: N.T.S.



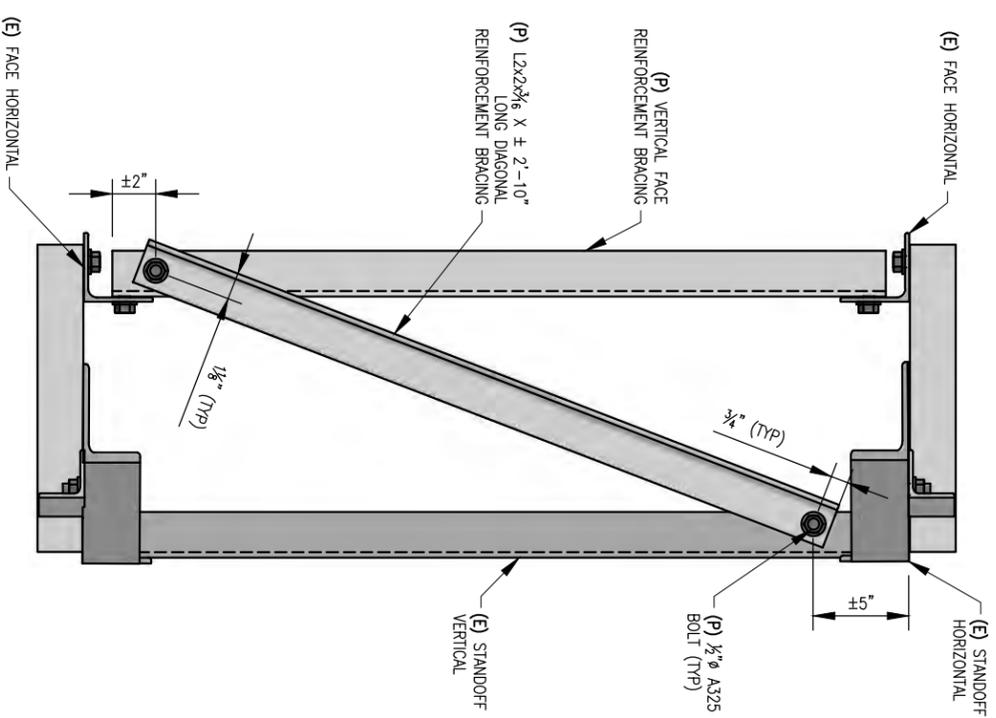
D1 PROPOSED REINFORCEMENT DETAIL (TYP)
SCALE: N.T.S.



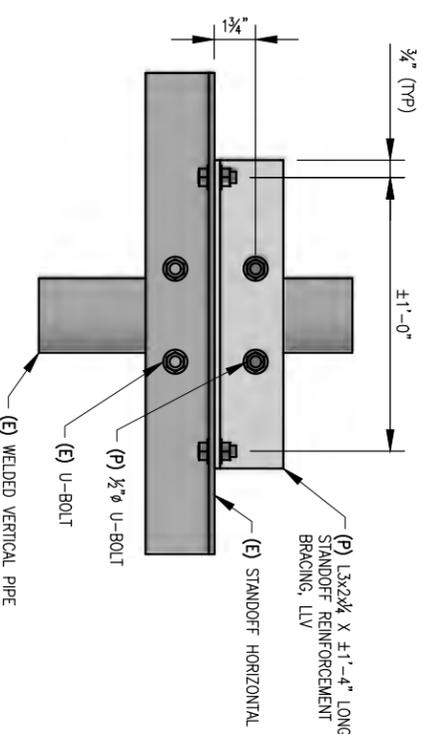
G2 PROPOSED VERTICAL FACE HORIZONTAL REINFORCEMENT (TYP)
SCALE: N.T.S.



D2 PROPOSED REINFORCEMENT DETAIL (TYP)
SCALE: N.T.S.



G4 PROPOSED DIAGONAL REINFORCEMENT DETAIL (TYP)
SCALE: N.T.S.



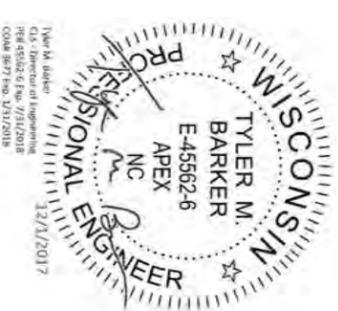
D4 PROPOSED STANDOFF REINFORCEMENT DETAIL (TYP)
SCALE: N.T.S.



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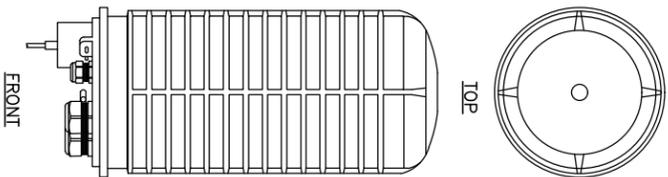
WI0184
EAST MONONA
FA#: 10014130
4740 SPAANEM AVENUE
MADISON, WI 53716

SHEET TITLE
MODIFICATION
DETAIL VIEWS

SHEET NUMBER

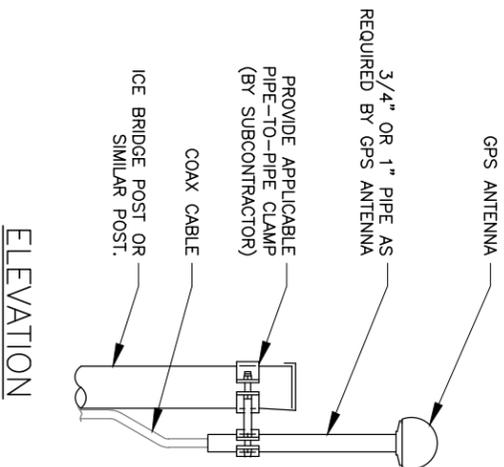
S-2

| | |
|-------------------------------|-----------------------|
| RAYCAP DC6-48-60-18-8C | |
| MANUFACTURE: | RAYCAP |
| MODEL: | DC6-48-60-18-8C |
| DIMENSIONS: | 18.2" X 10.2" X 10.2" |
| H X W X D (IN) | |
| WEIGHT (LBS): | 26LBS WITH BRACKET |
| NOMINAL OPERATION VOLTAGE | 48 VDC |
| VOLTAGE PROTECTION RATING | 300 VOLTS |



1 DC6-48-60-18-8C RAYCAP SPECIFICATIONS

SCALE: N.T.S. RE: GN22/GN1



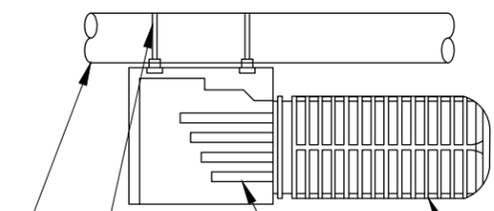
NOTES

1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

4 GPS ANTENNA MOUNT DETAIL

SCALE: N.T.S.

RE: GN22/GN1

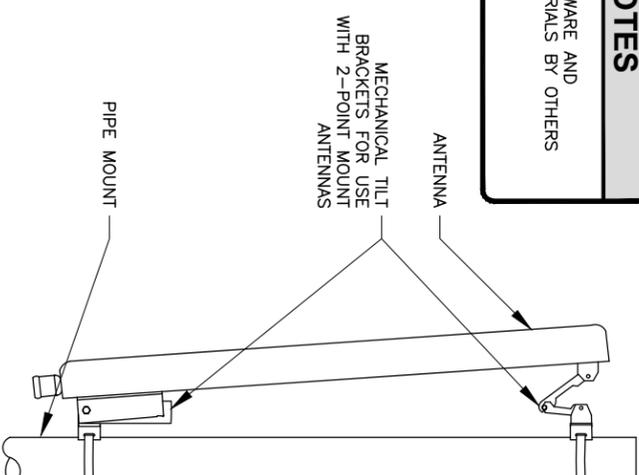


2 SURGE UNIT MOUNTING DETAIL (TYP.)

SCALE: N.T.S. RE: GN22/GN1

NOTES

ANTENNA, HARDWARE AND MOUNTING MATERIALS BY OTHERS

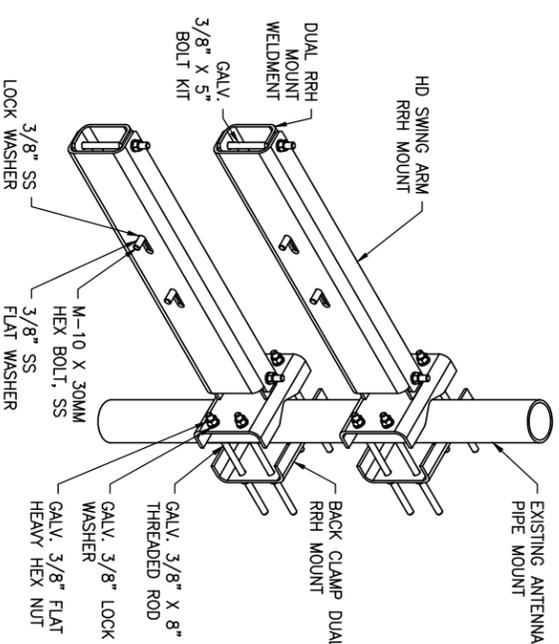


3 DOWN TILT ASSEMBLY

SCALE: N.T.S. RE: GN22/GN1

DUAL MOUNTING BRACKET

VENDOR: COMSCOPE
MODEL: MTC3326DHD
WEIGHT: 40.91 LBS



5 DUAL MOUNTING BRACKET - HD SPECIFICATIONS

SCALE: N.T.S.

RE: GN22/GN1



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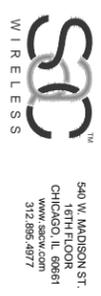
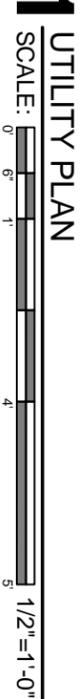
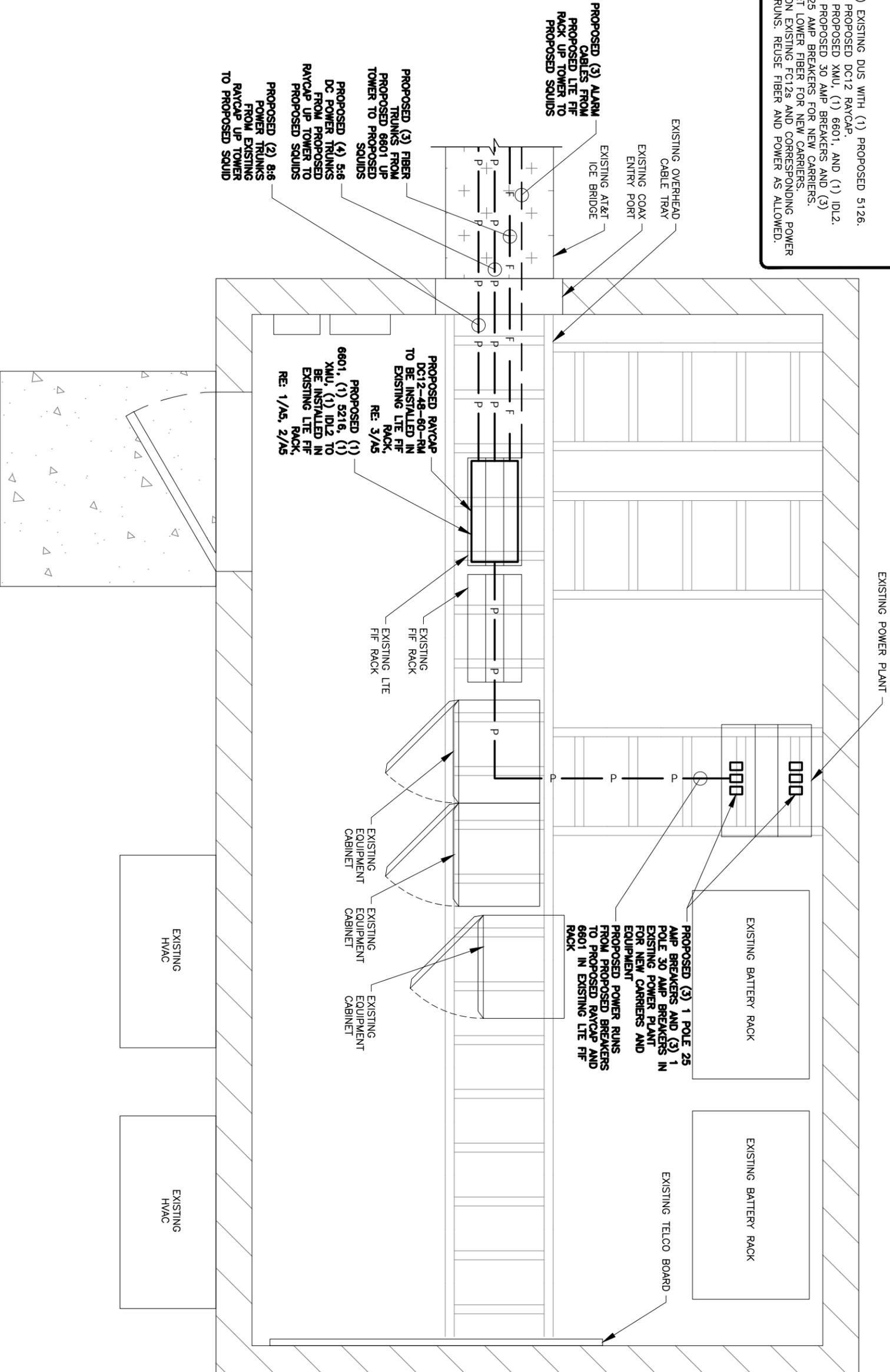
WI0184
EAST MONONA
FA#: 10014130
4740 SPANEM AVE
MADISON, WI 53716

EQUIPMENT DETAILS

SHEET NUMBER
A7

SCOPE OF WORK

- GROUND SOW:
1. REPLACE (1) EXISTING DUS WITH (1) PROPOSED 5126.
 2. INSTALL (1) PROPOSED DC:12 RAYCAP.
 3. INSTALL (1) PROPOSED XMU, (1) 6601, AND (1) 1DL2.
 4. INSTALL (3) PROPOSED 30 AMP BREAKERS AND (3) PROPOSED 25 AMP BREAKERS FOR NEW CARRIERS.
 5. INSTALL AT&T LOWER FIBER FOR NEW CARRIERS.
 6. DECOMMISSION EXISTING FC:12s AND CORRESPONDING POWER AND FIBER RUNS. REUSE FIBER AND POWER AS ALLOWED.



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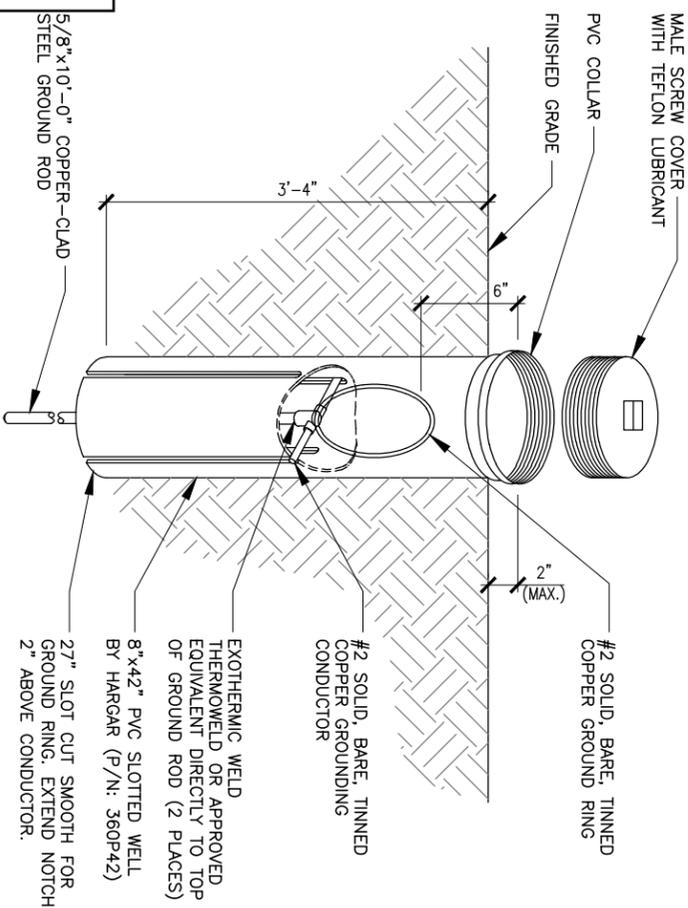


PE# 45562-6 EXP: 07/31/2018

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EAST MONONA
 FA#: 10014130
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SHEET TITLE
UTILITY PLAN

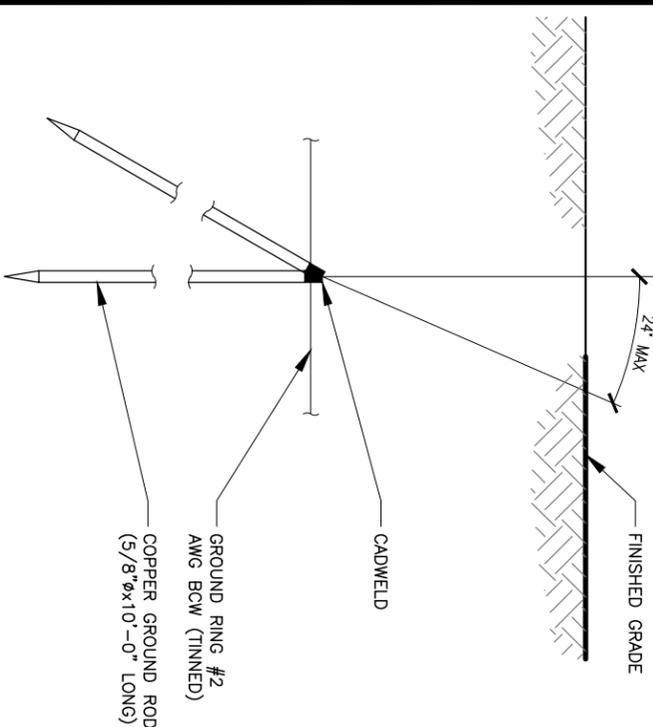
SHEET NUMBER
E1



GROUND ROD WITH INSPECTION WELL

SCALE: N.T.S.

RE: GN22/GN1

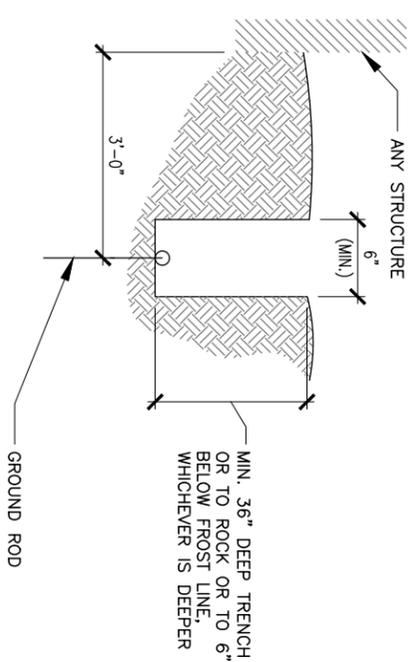


COPPER-CLAD STEEL GROUNDING ROD

SCALE: N.T.S.

RE: GN22/GN1

NOTES
 GROUNDING EQUIPMENT, WIRE SIZE, CONNECTIONS, LOCATION AND NUMBER OF RODS PER OWNER REQUIREMENTS. THIS INFORMATION IS SCHEMATIC AND SUPPLIED TO US AND IS FOR GENERAL REFERENCE ONLY. CONTACT OWNER OR OWNERS ELECTRICAL ENGINEER FOR SPECIFICS OR QUESTIONS REGARDING ELECTRICAL CAPACITY, OR INSTALL PER PERTINENT ELECTRICAL CODES.

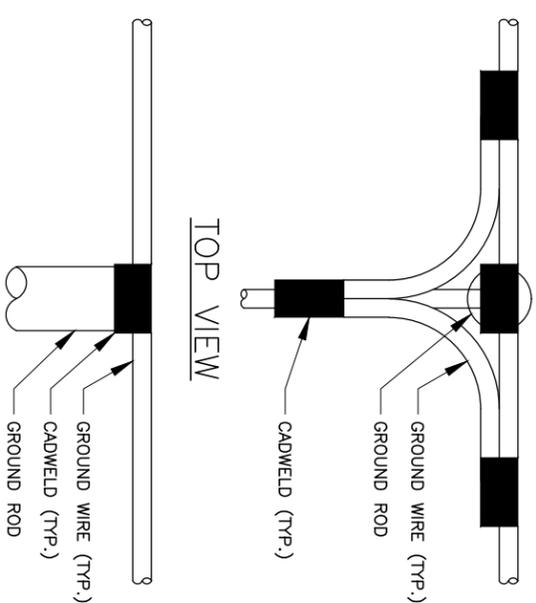


GROUND RING TRENCH DETAIL

SCALE: N.T.S.

RE: GN22/GN1

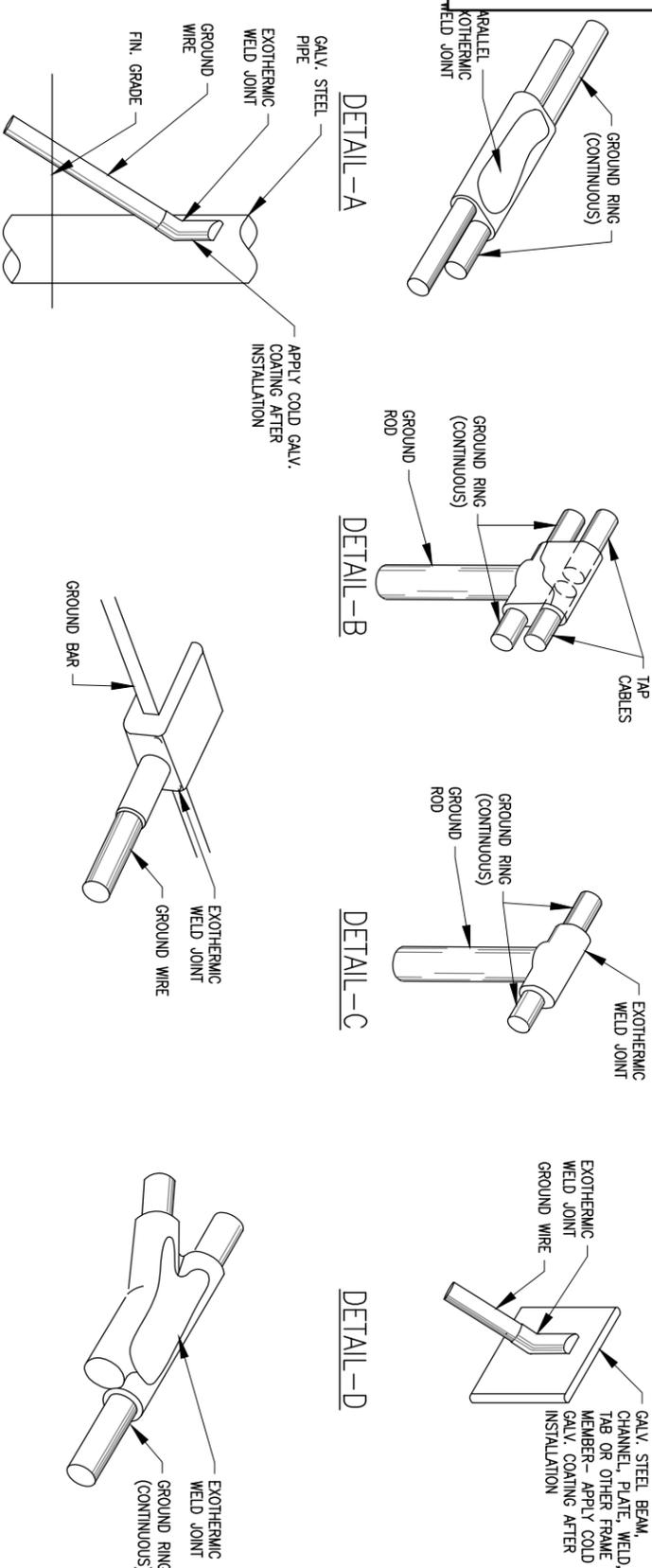
NOTES
 MINIMUM SPACING OF 12" BETWEEN ALL CADWELDS



CADWELD GROUNDING DETAIL

SCALE: N.T.S.

RE: GN22/GN1



WELD CONNECTION DETAILS

SCALE: N.T.S.

RE: GN22/GN1



930 NATIONAL PARKWAY
 SHAMBERG, IL 60173



540 W. MADISON ST.
 15TH FLOOR
 CHICAGO, IL 60601
 312.856.4877



609 S. KELLY AVENUE, STE. D
 EDMOND, OK 73003
 Ph: (405) 348-5460 FAX:(405) 341-4625

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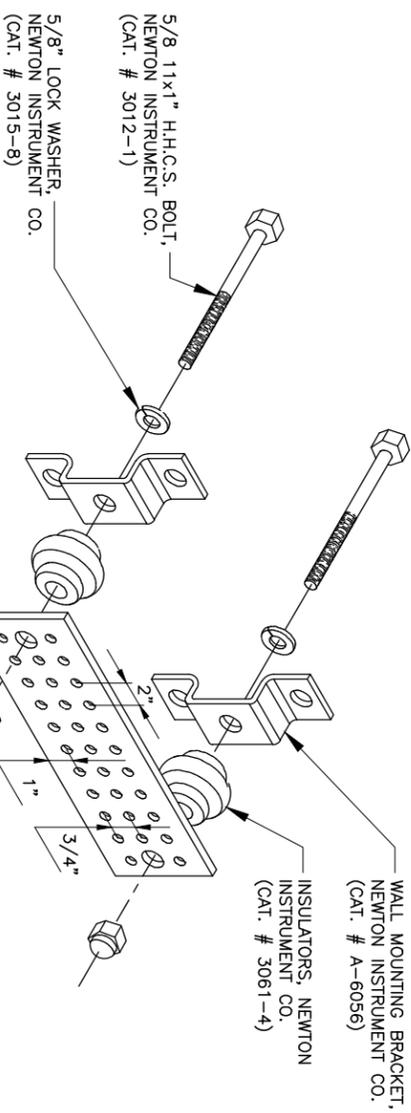
WI0184
 EAST MONONA
 FA#: 1001.4130
 4740 SPANANEM AVE
 MADISON, WI 53716

SHEET TITLE
 GROUNDING DETAILS

SHEET NUMBER
G1

NOTES

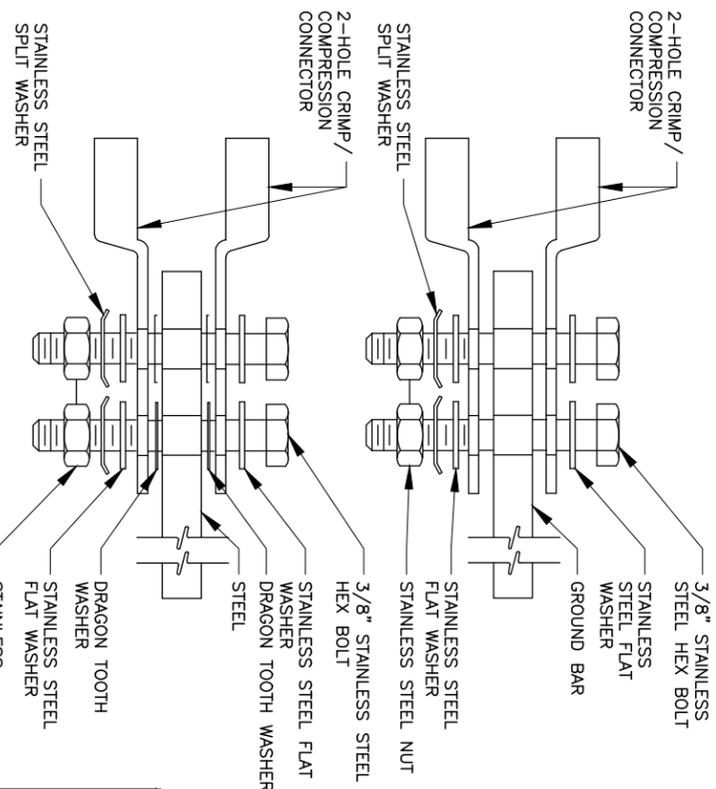
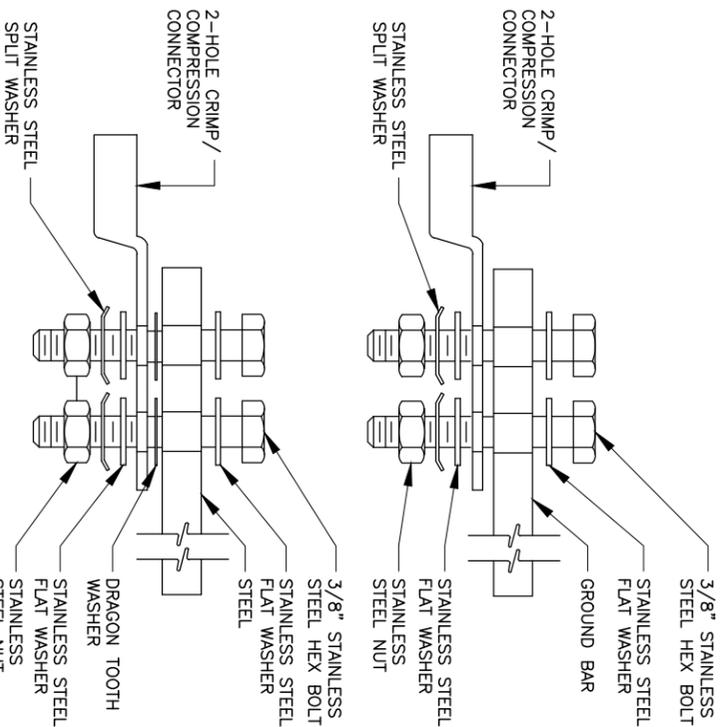
GROUNDING EQUIPMENT, WIRE SIZE, CONNECTIONS, LOCATION AND NUMBER OF RODS PER OWNER REQUIREMENTS. THIS INFORMATION IS SCHEMATIC AND SUPPLIED TO US AND IS FOR GENERAL REFERENCE ONLY. CONTACT OWNER OR OWNERS ELECTRICAL ENGINEER FOR SPECIFICS OR QUESTIONS REGARDING ELECTRICAL CAPACITY, OR INSTALL PER PERTINENT ELECTRICAL CODES.



NOTES
GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY.

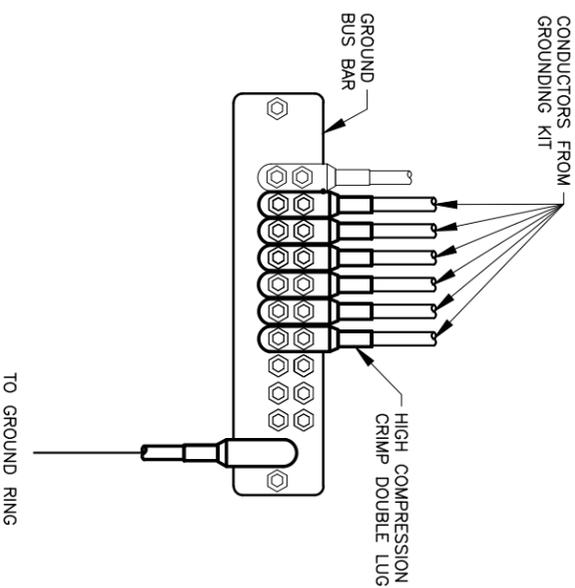
STANDARD GROUND BAR DETAIL
SCALE: N.T.S.

RE: GN22/GN1



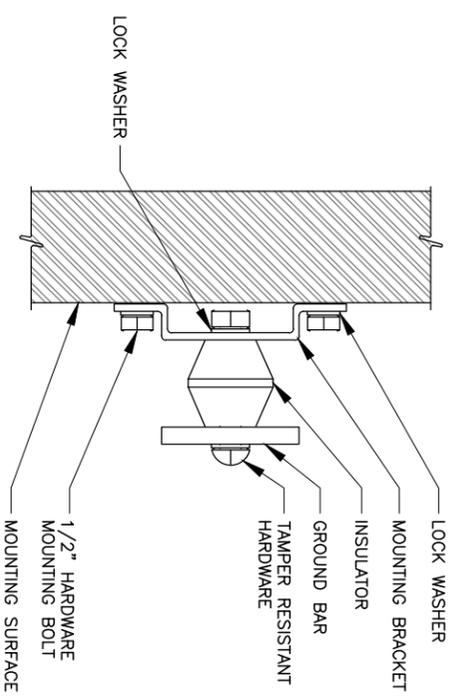
2 GROUND BAR DETAIL
SCALE: N.T.S.

RE: GN22/GN1



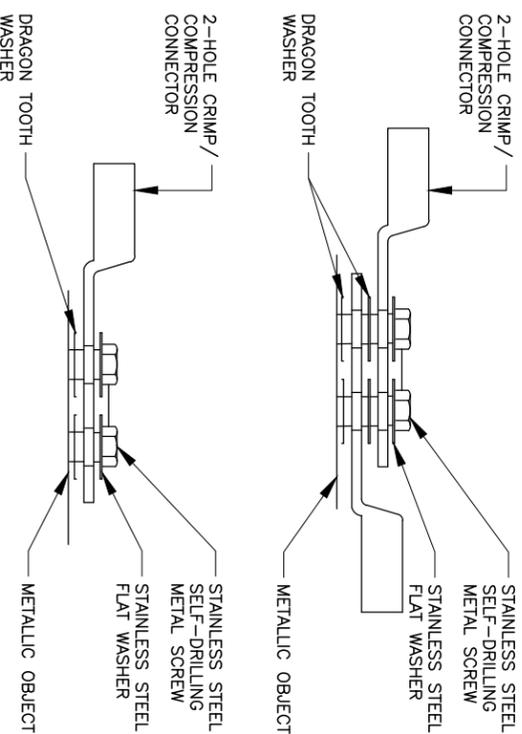
3 ISOLATED GND BAR MOUNTING DETAIL
SCALE: N.T.S.

RE: GN22/GN1



NOTES

1. CHOOSE BOLT LENGTH TO ALLOW A MIN. OF THREE THREADS EXPOSED.
2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF THE CONNECTOR.
3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF CONNECTOR AND WIPE OFF EXCESS COMPOUND. FOR ALL DISSIMILAR METALS WHICH CONNECT.
4. APPLY CLEAR HEAT SHRINK OVER ENTIRE LENGTH OF LABEL FOR PROTECTION. (REFER TO CONDUCTOR LABELS SECTION.)



4 TYPICAL GROUND BAR CONNECTION DETAILS
SCALE: N.T.S.

RE: GN22/GN1



930 NATIONAL PARKWAY
SHALWBERG, IL 60173



540 W. MADISON ST.
16TH FLOOR
CHICAGO, IL 60681
312.856.4877



609 S. KELLY AVENUE, STE. D
PH: (405) 348-5400 FAX: (405) 341-4625
EDMOND, OK 73003

CO# 3677 EXP. 01/31/2018

| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 10/06/17 | PRELIMINARY ISSUE | MM |
| 0 | 12/07/17 | FOR CONSTRUCTION | PM |

NOT FOR CONSTRUCTION UNLESS LABELLED AS CONSTRUCTION SET



PE# 45562-6 EXP. 07/31/2018

WI0184

EAST MONONA
FA#: 1001-4130
4740 SPANANEM AVE
MADISON, WI 53716

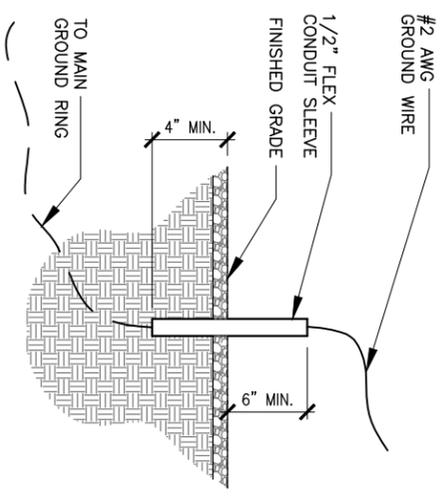
SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G2

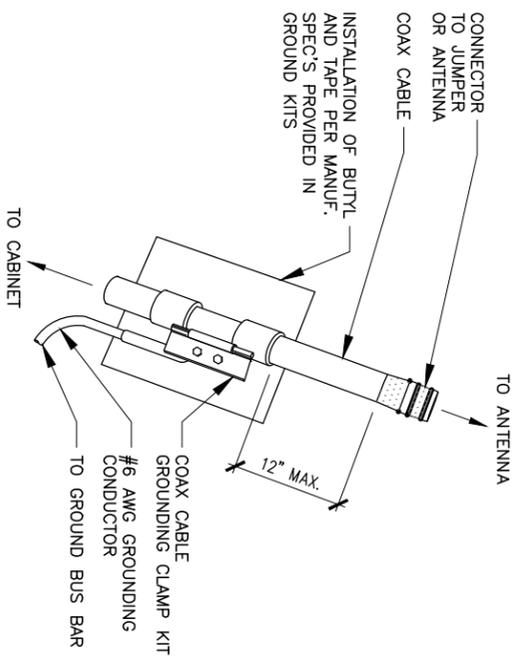
NOTES

GROUNDING EQUIPMENT, WIRE SIZE, CONNECTIONS, LOCATION AND NUMBER OF RODS PER OWNER REQUIREMENTS. THIS INFORMATION IS SCHEMATIC AND SUPPLIED TO US AND IS FOR GENERAL REFERENCE ONLY. CONTACT OWNER OR OWNERS ELECTRICAL ENGINEER FOR SPECIFICS OR QUESTIONS REGARDING ELECTRICAL CAPACITY, OR INSTALL PER PERTINENT ELECTRICAL CODES.



1 GROUNDING SLEEVE DETAIL
SCALE: N.T.S.

RE: GN22/GN1



2 GROUNDING KIT DETAIL
SCALE: N.T.S.

RE: GN22/GN1

3 NOT USED
SCALE: N.T.S.

4 NOT USED
SCALE: N.T.S.



930 NATIONAL PARKWAY
SHALMBURG, IL 60173



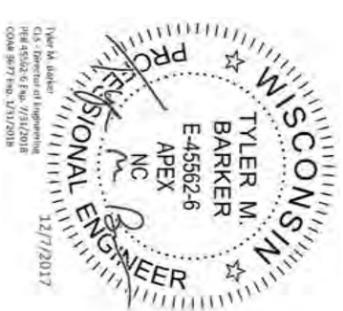
540 W. MADISON ST.
15TH FLOOR
CHICAGO, IL 60661
312.856.4877



609 S. KELLY AVENUE, STE. D
EDMOND, OK 73003
Ph: (405) 348-5460 FAX:(405) 341-4625
COA# 3677 EXP. 01/31/2018

| REV. | DATE | DESCRIPTION | INITIALS |
|------|----------|-------------------|----------|
| A | 10/06/17 | PRELIMINARY ISSUE | MAM |
| 0 | 12/07/17 | FOR CONSTRUCTION | PWD |
| | | | |
| | | | |

NOT FOR CONSTRUCTION UNLESS LABELLED AS CONSTRUCTION SET



PE# 45562-6 EXP: 07/31/2018

WI0184
EAST MONONA
FA#: 10014130
4740 SPANEM AVE
MADISON, WI 53716

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G3

EXHIBIT D

License Fee Schedule

| | License Year | License Period | Base Antenna Fee* | Additional Equipment Occupancy Area (cu. ft.) | Additional Fee (per cu. ft.)** | Total Additional Fee | TOTAL LICENSE FEE |
|---------------------|--------------|-------------------------|-------------------|---|--------------------------------|----------------------|-------------------|
| Initial Term | 1 | 04/01/2022 - 03/31/2023 | \$30,000.00 | 119.00 | \$25.00 | \$2,975.00 | \$32,975.00 |
| | 2 | 04/01/2023 - 03/31/2024 | \$30,900.00 | 119.00 | \$25.75 | \$3,064.25 | \$33,964.25 |
| | 3 | 04/01/2024 - 03/31/2025 | \$31,827.00 | 119.00 | \$26.52 | \$3,156.18 | \$34,983.18 |
| | 4 | 04/01/2025 - 03/31/2026 | \$32,781.81 | 119.00 | \$27.32 | \$3,250.86 | \$36,032.67 |
| | 5 | 04/01/2026 - 03/31/2027 | \$33,765.26 | 119.00 | \$28.14 | \$3,348.39 | \$37,113.65 |
| First Renewal Term | 6 | 04/01/2027 - 03/31/2028 | \$34,778.22 | 119.00 | \$28.98 | \$3,448.84 | \$38,227.06 |
| | 7 | 04/01/2028 - 03/31/2029 | \$35,821.57 | 119.00 | \$29.85 | \$3,552.31 | \$39,373.87 |
| | 8 | 04/01/2029 - 03/31/2030 | \$36,896.22 | 119.00 | \$30.75 | \$3,658.87 | \$40,555.09 |
| | 9 | 04/01/2030 - 03/31/2031 | \$38,003.10 | 119.00 | \$31.67 | \$3,768.64 | \$41,771.74 |
| | 10 | 04/01/2031 - 03/31/2032 | \$39,143.20 | 119.00 | \$32.62 | \$3,881.70 | \$43,024.90 |
| Second Renewal Term | 11 | 04/01/2032 - 03/31/2033 | \$40,317.49 | 119.00 | \$33.60 | \$3,998.15 | \$44,315.64 |
| | 12 | 04/01/2033 - 03/31/2034 | \$41,527.02 | 119.00 | \$34.61 | \$4,118.10 | \$45,645.11 |
| | 13 | 04/01/2034 - 03/31/2035 | \$42,772.83 | 119.00 | \$35.64 | \$4,241.64 | \$47,014.47 |
| | 14 | 04/01/2035 - 03/31/2036 | \$44,056.01 | 119.00 | \$36.71 | \$4,368.89 | \$48,424.90 |
| | 15 | 04/01/2036 - 03/31/2037 | \$45,377.69 | 119.00 | \$37.81 | \$4,499.95 | \$49,877.65 |
| Third Renewal Term | 16 | 04/01/2037 - 03/31/2038 | \$46,739.02 | 119.00 | \$38.95 | \$4,634.95 | \$51,373.98 |
| | 17 | 04/01/2038 - 03/31/2039 | \$48,141.19 | 119.00 | \$40.12 | \$4,774.00 | \$52,915.19 |
| | 18 | 04/01/2039 - 03/31/2040 | \$49,585.43 | 119.00 | \$41.32 | \$4,917.22 | \$54,502.65 |
| | 19 | 04/01/2040 - 03/31/2041 | \$51,072.99 | 119.00 | \$42.56 | \$5,064.74 | \$56,137.73 |
| | 20 | 04/01/2041 - 03/31/2042 | \$52,605.18 | 119.00 | \$43.84 | \$5,216.68 | \$57,821.86 |

* Base Antenna Fee: Allows for attachment of up to 100 cu. ft. of Equipment; fee escalates 3%/yr.

** Additional Fee: Calculated on a per cu. ft. basis; fee escalates 3%/yr.

EXHIBIT E

(page 1 of 2)

EQUIPMENT MODIFICATION REQUEST FORM

A. GENERAL INFORMATION

1. Date of Request: _____
2. Address: 4724 Spaanem Avenue, Madison, WI
3. City Real Estate Project No.: 5048
4. Licensee's Site Reference Name & Number: _____
5. Full corporate name of Licensee: _____
 - a. Licensee's Corporate Designation: _____
 - b. Licensee Address: _____
 - c. Licensee Contact: _____
 - i. Office Phone: _____
 - ii. Mobile: _____
 - iii. Email: _____

B. SCOPE OF WORK

1. Description of proposed work (Example: Install 3 new radio units, relocate 3 antennas, add 3 tower mounted amplifiers): _____

2. Proposed timeframe for installation activities
 - a. Start date: _____
 - b. Completion date: _____
3. Specific equipment to be used (e.g., man-lift, crane, etc.): _____

4. Specify any potential disturbance or damage to City property and indicate proposed restoration plan and timeline (e.g., landscape disturbance, fence disturbance, etc.): _____

5. (If needed, include additional information as attachment)

C. REQUIRED REPORTS AND STUDIES

The following documents must be submitted to the City along with this Equipment Modification Form:

1. Completed Equipment Inventory Form (attached)
2. Updated Structural Analysis
3. Updated Site Safety/RF Emissions Report
4. Updated Interference Study (if applicable)
5. Construction drawings/plans and specifications of the proposed work, stamped by a professional engineer licensed in the State of Wisconsin
6. Any other information relevant to the proposed equipment modification activities.

Forward completed form and required reports, etc. via e-mail to:

City of Madison – Office of Real Estate Services
Attention: Lance Vest, Real Estate Specialist 2
lvest@cityofmadison.com
Phone: 608-245-5794

