

## **CITY OF ROCKVILLE LEASE AGREEMENT**

THIS LEASE AGREEMENT (“Agreement”), is made this \_\_\_\_\_ day of \_\_\_\_\_, 2010, between the MAYOR AND COUNCIL OF ROCKVILLE, a municipal corporation, located at 111 Maryland Avenue, Rockville, Maryland 20850, hereinafter designated as “Lessor” and CELLCO PARTNERSHIP, a Delaware general partnership, d/b/a Verizon Wireless, with a principal mailing address of One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404) hereinafter designated “Lessee.”

### **SECTION 1. DEFINITIONS**

For the purposes of this Agreement, the following terms and phrases shall have the meaning specified.

- (a) Agreement: The Lease Agreement contained herein.
- (b) Antenna Facility (ies): Lessee’s antennas, support structure(s), transmission lines and any appurtenances located on or adjacent to the Water Tank, excluding Ground Communications equipment.
- (c) City: A municipal corporation in Maryland with the corporate name of “The Mayor and Council of Rockville,” also known as the City of Rockville, Maryland.
- (d) City Attorney: The City Attorney for the City of Rockville, including any Assistant City Attorney.
- (e) Commencement Date: The date specified in Section 4 of this Agreement.
- (f) Communications Facility (ies): The entirety of Lessee’s equipment, cabinet(s), building(s), support pad, antennae, and appurtenances.
- (g) Director of Public Works: The Director of the City of Rockville’s Department of Public Works
- (h) Ground Communications Equipment: Lessee’s cabinet(s), building(s) and equipment therein, support pad, transmission and utility lines, and any appurtenances located on or beneath the ground.
- (i) Hazardous Substances: Any substance regulated by any environmental law.
- (j) Lease Term: Includes “Initial Term,” “First Renewal Term,” Successive Renewal Term(s),” and “Yearly Renewal” as defined in Section 4 of this Agreement.

(k) Premises: The parcel or portion of the Property that is leased to the Lessee and those areas of the Property made available to Lessee for access, parking, and for transmission and utility lines.

(l) Property: The real property owned by the Lessor and located at 13902 Glen Mill Road, Rockville, Montgomery County, Maryland 20850.

(m) Shared Antenna Structure: The edifice or “ring” to be attached to the Water Tank and upon which are mounted the communication antennae of one or more communication providers.

(n) Water Tank: The self-supporting structure owned by Lessor on the Property designed and used for the storage of water as part of Lessor’s water distribution system.

(o) Water Tank Equipment: Lessee’s equipment and appurtenances placed on, attached to, or connected to the Water Tank.

## **SECTION 2. PROPERTY**

(a) Lessor is the owner of real property located at 13902 Glen Mill Road, Rockville, Montgomery County, Maryland 20850 (hereinafter called the “Property”).

(b) The primary purpose of the Property is for the operation of a water storage tank, storage of salt and abrasives for use on public roads and such other operations of the City of Rockville’s Public Works Department as may be deemed appropriate by the City Government.

(c) The Lessee understands and agrees that the City’s uses of the Property shall have priority, and the Lessee shall make necessary accommodations to permit the City’s uses of the Property to operate safely and efficiently.

## **SECTION 3. LEASED PREMISES; ACCESS**

(a) Lessor agrees to lease to Lessee, and Lessee agrees to lease from Lessor, the following (collectively referred to as the “Premises”):

(1) An area of ground space on the Property as depicted on Exhibit “A” attached or annexed hereto and made a part hereof, (the “Ground Equipment Area”) for the installation, operation, maintenance, repair and replacement of the Ground Communications Equipment. The Ground Communications Equipment and the Ground Equipment Area are described and/or depicted in Exhibits “A” and “B,” attached or annexed hereto and made a part hereof; and

(2) The non-exclusive right to install antennae and appurtenant equipment on the Lessor’s Water Tank (“Water Tank Equipment”) located on the Property and to connect such

antennae and appurtenant equipment to Lessee's ground equipment on the Premises as described and/or depicted in Exhibits "A" and "B".

(3) A non-exclusive right-of-way for:

(i) Ingress and egress over the Property to the Ground Equipment Area and the Water Tank Equipment, seven (7) days a week twenty-four (24) hours a day, on foot or motor vehicle, including trucks, subject to the notice and security requirements set forth in this Agreement and any policies or rules established by the Lessor; and

(ii) The installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along the Property to the Ground Equipment Area.

(b) Notwithstanding the rights granted Lessee under subsection (a) of this Section, the Lessor shall have the sole and exclusive right to lease any portion of the remainder of the Property, including but not limited to the Water Tank, to other Lessees, including but not limited to other telecommunications companies that may wish to collocate their facilities on the Property.

(c) Lessee shall not take any action with respect to the remainder of the Property or its facilities installed on the Water Tank that would hinder the collocation on the Property and the Water Tank by any other telecommunications provider.

(d) Lessee shall not sublease any portion of the Premises or its Communication Facilities.

(e) Lessee is responsible for providing, at its own cost, the necessary equipment to gain access to the Water Tank and the Premises.

(f) Lessor is not required to alter the Water Tank, the Premises, or the Property to accommodate Lessee's operation of its Communication Facility.

#### **SECTION 4. TERM AND RENT**

(a) The term of this Agreement shall be as follows:

(1) The Agreement shall be effective as of the date of execution by both Parties, provided, however, the initial term shall be for five (5) years and shall commence upon the first (1<sup>st</sup>) day of the month following the month in which Lessee commences construction of its Communications Facility, or November 1, 2010, whichever occurs first (the "Commencement Date"), and terminating at midnight on the last day of the initial term (the "initial term").

(2) Lessee shall have the option to extend this Agreement for one (1) additional five (5) year term ("First Renewal Term") on the same terms and conditions as set forth herein. This Agreement shall automatically renew for the First Renewal Term unless Lessee notifies

Lessor, in writing, of Lessee's intention not to renew this Agreement at least one hundred and eighty (180) days prior to the expiration of the initial term. .

(3) Thereafter, this Agreement shall automatically renew for two (2) additional and successive five (5) year renewal terms ("Successive Renewal Term") on the same terms and conditions as set forth herein unless either party notifies the other, in writing, of its intention not to renew this Agreement at least one hundred and eighty (180) days prior to the expiration of the then current renewal term.

(4) If Lessee shall remain in possession of the Premises at the expiration of the last Successive Renewal Term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year and for annual terms thereafter ("Yearly Renewal") until terminated by either party by giving to the other written notice of its intention to so terminate at least one hundred and eighty (180) days prior to the end of such term.

(b) Lessee shall pay Rent to Lessor as follows:

(1) Effective on the Commencement Date, rental payments are due and payable at an annual rental rate of thirty-one thousand eight hundred thirty-three and no/100 Dollars (\$31,833.00) for the first year, to be paid in equal monthly installments of two thousand six hundred fifty-two and 75/100 Dollars (\$2,652.75).

(2) During each subsequent year of the Initial Term, each year of any renewal terms (First and Successive Renewal Terms), and each successive Yearly Renewal that the Lessee remains in possession of the Premises, the Rent shall increase annually by five percent (5%), of the previous year's amount. Such increase shall take effect on each anniversary of the Commencement Date.

(3) Rent shall be paid in equal monthly installments on the first day of the month, in advance, with a five (5) day grace period.

(4) All Rent payments shall be made to the City of Rockville, 111 Maryland Avenue, Rockville, Maryland 20850, or to such other person, firm or place as the Lessor, may, from time to time, designate in writing at least thirty (30) days in advance of any rental payment date.

## **SECTION 5. USE OF LEASED PREMISES; FEASIBILITY; PROPERTY SECURITY**

(a) Lessee shall use the Premises for the purpose of installing, constructing, maintaining and operating its equipment, as further described in Section 8 of this Agreement.

(1) All improvements to the Premises shall be at Lessee's expense.

(2) Lessee shall maintain the Premises in good condition at all times.

(b) Lessee shall not commence any construction or installation activities on the Premises or the Property prior to the issuance of all required City permits. All work shall be performed in accordance with all permits and with the provisions of Section 8 of this Agreement.

(c) It is understood and agreed that Lessee's ability to use the Premises is contingent upon its obtaining and paying required fees for all of the certificates, permits and other approvals that may be required by any federal, state or local authorities including but not limited to the City as well as satisfactory soil boring tests that will permit Lessee to use the Premises as set forth above.

(1) Lessor shall cooperate with Lessee in its effort to obtain such approvals and shall take no action that would adversely affect the status of the Premises with respect to the proposed use thereof by Lessee. It is understood and agreed that this paragraph (1) does not commit the City or any of its departments, boards or commissions in exercising their regulatory authority to make any approvals within their jurisdiction.

(2) Lessee shall have the right to terminate this Agreement upon the occurrence of any of the following:

(i) Any application for a required approval is finally denied; or

(ii) Any required certificate, permit, license or approval issued to Lessee is canceled, not renewed by the governmental authority, or is otherwise withdrawn or terminated by governmental authority through no fault of the Lessee

(iii) Soil boring tests are found to be unsatisfactory or will cause Lessee to be unable to use the Premises for its intended purposes,

(3) If Lessee exercises its right to terminate under the provisions of this Section 5 (c) within ninety (90) days of the Commencement Date, Lessee must provide Lessor with ninety (90) days prior written notice of such termination. If Lessee exercises its right to terminate under the provisions of this Section 5 (c) later than ninety (90) days from the Commencement Date, Lessee must provide Lessor with one hundred and eight (180) days prior written notice.

(4) All Rent paid prior to the effective date of termination shall be retained by the Lessor. Payments in arrears will be deducted from Lessee's Security Deposit. Upon termination, this Agreement shall become null and void, and none of the parties shall have any further obligations including the payment of additional rent, to each other, subject to the terms of Sections 13 and 24 of this Agreement.

(d) Lessee shall lock and/or secure the access gates surrounding its Ground Communications Equipment upon exiting the Premises and shall provide Lessor with keys and/or any other appropriate means of accessing the Premises via the driveway depicted on Exhibit "A" seven (7) days a week, twenty-four (24) hours a day.

**SECTION 6. UTILITY ACCESS AND SERVICE**

(a) For the Lease Term Lessor shall grant Lessee and the local utility companies at no additional charge excepting any required permit fees and other similar charges such permission and space as may be reasonably required to construct, install, maintain, operate, provide, repair, and remove communication and electric power lines and systems for telephone and electric service to the Premises. The Director of Public Works must approve in writing the location of any utility service prior to its installation.

(b) Lessee shall be responsible for arranging for all necessary utility services for its facilities.

(1) Lessee shall be solely responsible for all costs and expenses relating to the connection, disconnection, consumption and use of any utility service in connection with Lessee's construction, installation, operation and maintenance of the Premises including, without limitation, any electric consumption by its equipment.

(2) Lessee agrees to pay all costs for and procure the installation of an electric meter for service from the local utility company.

(c) All utility service must be installed and maintained in accordance with applicable law and subject to applicable permit requirements.

(d) All utility wires, cables, conduits, and pipes serving Lessee's Premises and facilities must be located underground.

(e) INTENTIONALLY DELETED

**SECTION 7. CONSTRUCTION AND LEASE PERFORMANCE: FINANCIAL SECURITY**

(a) INTENTIONALLY DELETED

(b) INTENTIONALLY DELETED

(c) INTENTIONALLY DELETED

(d) Lessee shall deliver to Lessor a bond, a demand letter of credit, or other security in a form acceptable to the Director of Public Works and City Attorney in the amount of \$50,000 to serve as a Security Deposit to assure compliance with all of the terms and conditions of this Agreement throughout the Lease Term and to reimburse the City for any damages or costs arising out of Lessee's use of the Premises and the Property.

(1) Lessor may utilize the security deposit to reimburse Lessor for any damages suffered by Lessor as a result of a default by Lessee or as a result of Lessee's use of the Premises, including but not limited to damages to Lessor's property resulting from Lessee's use of the Premises or the Property; the cost of removing Lessee's equipment remaining on the Property at the expiration of the Lease Term; any outstanding rent due and owing at the expiration of the Lease Term; and the cost of removing and/or relocating Lessee's equipment to accommodate Lessor's maintenance and/or operation of the Water Tank.

(2) The sum of \$50,000 shall be available at all times during the Lease Term or until all of Lessee's equipment is removed whichever occurs later to serve as a security deposit. If a portion or all of the security deposit is utilized by the Lessor for the purposes set forth in this Section 7 (d), said amount so used shall be replaced by Lessee within 30 days of a written demand made by Lessor for such replacement.

(3) If submitted as cash, the security deposit shall be maintained by the Lessor in a segregated account. Any interest that accrues on the deposit shall accrue to the benefit of the Lessor.

(e) Each subsequent carrier, including but not limited to Lessee, is required to post and maintain their own \$50,000 security deposit throughout the applicable Lease Term or until all of Lessee's equipment is removed whichever occurs later.

## **SECTION 8. LESSEE IMPROVEMENTS**

(a) At its sole cost and expense, Lessee may construct and install the following improvements, as shown on Exhibits A and B:

(1) Ground Communications Equipment. Lessee may construct in accordance with Exhibit "A" for the installation, operation, maintenance, repair and replacement of the Ground Communications Equipment and related appurtenances.

(2) Water Tank Equipment. Lessee may install antennae and appurtenant equipment on the Lessor's Water Tank located on the Property ("Water Tank Equipment") and connect such antennae and appurtenant equipment to Lessee's Ground Communications Equipment.

(b) Construction and installation of the Ground Communications Equipment, the Water Tank Equipment, and related appurtenances (collectively Communications Facilities), and the Shared Antenna Structure shall be in accordance with the following:

(1) The plans, drawings, specifications, (also referred to as construction documents) shall be prepared and provided by Lessee and approved by Lessor. Lessor shall have forty five (45) days to review said construction documents and approve them or notify Lessee of necessary changes, or to give written notice that a third party will review the construction plans. If such notice of review by a third party is given, Lessor shall have an additional forty five (45)

days from date of such notice to approve the construction documents or notify Lessee of necessary changes. Notwithstanding the foregoing, the failure to review the construction documents within the time frame set forth herein shall not constitute a default by the Lessor. Lessee may not proceed with construction without Lessor's prior approval.

(2) All applicable rules and regulations of the FCC, FAA, and regulations of any governmental agency (city, county, state or federal) including, but not limited to, the applicable requirements of the City's zoning, building, and electrical codes.

(3) Lessee has the responsibility of carrying out the terms of its FCC license with respect to any supporting structures, lighting requirements and notifications to the FAA

(c) Any modifications to the Communications Facilities, such as, but not limited to an increase in the size, number, color, or noise output of cabinets and/or expansion of the ground equipment area or change in the size, number, color, or location of antennas will require an amendment to this Lease and Lessor's prior written approval from the Lessor. Said modifications also may require an amendment to any zoning approvals and may require building or electrical permits.

(d) Notwithstanding the above, exchange of like-kind equipment on the water tank with equipment of the same general purpose shall not require approval of the Lessor, but Lessee shall provide written notice to Lessor of such like-kind exchanges. Lessee shall not be required to provide notice to Lessor of modifications of any kind within Lessee's enclosed equipment cabinets or shelters and such modifications shall not require Lessor's approval, unless such modifications result in increased noise output, other appreciable impact, or potential health or safety impact, in which case Lessee shall comply with the provisions of Section 8 (c).

(e) The Lessee must give the Lessor at least 48 business hours prior notice before performing any work on or which requires access to the Lessor's Water Tank. All work on the Water Tank and its portion of the Property performed by or on behalf of the Lessee shall be performed during the normal business hours of Monday through Friday between 7:00 a.m. and 3:00 p.m., excluding City holidays. In the event of an emergency or service affecting maintenance work occurring outside of normal business hours, the Lessee shall notify the Lessor of its desire to access the Lessor's Water Tank, and the Lessee shall reimburse the Lessor the cost of providing access to the Water Tank available outside of normal business hours.

## **SECTION 9. AS BUILT PLANS**

Lessee shall provide Lessor with "as built" plans in print and electronic formats acceptable to the Lessor, within thirty (30) days after substantial completion of any improvement, structure and/or facilities on the Property and/or Premises.

**SECTION 10. LIABILITY; INDEMNIFICATION**

(a) Lessee shall indemnify and hold Lessor, its officers, agents, employees, servants, and contractors harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligent use and/or occupancy of the Premises or the Property or willful misconduct by the Lessee, its officers, agents, employees, servants or contractors, excepting, however, such claims or damages as may be attributable in whole or in part to the negligence or willful misconduct of the Lessor, its officers, agents, employees, servants, or contractors.

(b) Subject to the limitations and immunities provided by law, including but not limited to the Local Government Tort Claims Act, Section 5-303 (a), Courts & Judicial Proceedings Article, Annotated Code of Maryland, the Lessor shall be responsible for any claim of liability, loss, or damage arising from its negligence or willful misconduct, excepting, however, such claims or damages as may be attributable in whole or in part to the negligence of the Lessee, its agents, employees, servants, or contractors.

**SECTION 11. INSURANCE**

(a) Lessee shall obtain and maintain during the term of this Agreement a policy of commercial general liability insurance with bodily injury limits of \$1,000,000.00 for injury or death to one person, \$2,000,000.00 per occurrence, and property damage insurance with a limit of \$1,000,000.00 or \$3,000,000.00 combined single limit coverage for bodily injury and property damage with the Lessor named as an additional insured consistent with the additional insured status, and supporting documentation will be provided to reflect such status.

(1) Lessee may satisfy the limits required in this section with the combination of primary and excess/umbrella liability insurance policies naming the Lessor as additional insured.

(2) Lessee shall provide Lessor with a certificate of insurance showing the Lessor named as an additional insured on said commercial general liability insurance.

(b) Lessee shall obtain and maintain during the term of this Agreement a Workers' Compensation and Employers' Liability Policy with limits meeting statutory mandates with a minimum of \$100,000 for bodily injury by accident and for each accident; a minimum of \$500,000 for bodily injury by disease as policy limits and \$100,000 for bodily injury by disease for each employee.

(c) In the event the Water Tank is damaged by Lessee or its officers, agents, employees, servants, or contractors, Lessor shall repair, restore or replace the tank, and, upon receipt of written documentary evidence, Lessee shall pay to Lessor all costs incurred in cleaning or repairing the tank necessitated by said damage and in providing temporary replacement water service from the Washington Suburban Sanitary Commission or other source, if deemed necessary or prudent by the Director of Public Works.

(d) Notification of Incidents, Claims or Suits: Lessee shall report to the City:

(1) Any accident or incident relating to services performed under this Agreement which involves injury or property damage which may result in the filing of a claim or lawsuit against Lessee or Lessor. Such report shall be made in writing within 24 hours of occurrence.

(2) Any third party claim or lawsuit filed against Lessee arising from or related to services performed by Lessee under this Agreement.

(3) Any injury to a Lessee employee, which occurs on Leased property. This report shall be submitted within 24 hours and the City requires the full cooperation of the Lessee in the investigation of the injury.

(4) Any loss, disappearance, destruction, misuse, or theft of any kind whatsoever of City property entrusted to Lessee under the terms of this Agreement.

## **SECTION 12. RELATIONSHIP OF PARTIES**

The relationship created by this Agreement is one of landlord-tenant and shall not be considered a joint venture, nor shall any employees or agents engaged by Lessee be considered sub-agents or employees of Lessor.

## **SECTION 13. DEFAULT**

(a) If either party shall fail or neglect to keep and perform each and every one of the covenants, conditions and agreements contained herein, and such failure or neglect (“default”) is not remedied within thirty (30) days (or such other time frame as specified in this agreement, or such longer or shorter period as may reasonably be required to correct such failure under the circumstances) after written notice from the other party specifying such failure or neglect, then such party shall be deemed to be in default under this Agreement.

(b) In the event that either party shall fail to cure the default after notice given as set forth above, then the other party may pursue any legal remedy available to cure the default and/or may terminate this Agreement as provided in Sections 14 and 15 of this Agreement. No default of either party shall be deemed complete unless at the time the other party seeks to take any action based upon such alleged default, the same shall remain uncured.

(c) In addition to, and not in substitution for, any other remedy for a default under this Agreement in the case of an emergency or urgent matter affecting the public health, safety, or welfare, Lessor may take immediate action to remedy the default and the cost of such remedy shall be borne by the Lessee. The Lessor may utilize the security deposit to cover the costs incurred to remedy Lessee’s default and bill Lessee for any costs not covered by the security deposit.

## SECTION 14. TERMINATION BY LESSEE

(a) Lessee may terminate this Agreement during the Initial Term or any Renewal Term or Yearly Renewal for the following reasons:

(1) Lessor's default under this Agreement, subject to the provisions of Section 13 of this Agreement

(2) Lessee is unable to provide or continue to provide wireless service from the Property for the reasons set forth in Section 5 (c)(2) of this Agreement, or due to the action of the FCC or by reason of any law, physical calamity, governmental prohibition or other reasons beyond Lessee's control so that Lessee will be unable to carry out the purposes of its installation on the subject Property.

(3) Lessee determines that the Property or the Communications Facility is inappropriate or unnecessary for Lessee's operations for economic or technological reasons.

(4) Lessee decides not to renew the Lease Term pursuant to Section 4 of this Agreement.

(b) Lessee must provide the following written notice of termination to Lessor setting forth the reason for the termination and the intended effective date of termination. Notice must be provided as follows:

(1) For termination pursuant to Section 5(c) within ninety (90) days of the Commencement Date, notice must be given at least ninety (90) days prior to the intended effective termination date.

(2) For termination pursuant to Section 5(c) later than ninety (90) days after the Commencement Date, notice must be given at least one-hundred and eighty (180) days prior to the intended effective termination date.

(3) For termination for Lessor's default under this Agreement, notice must be given at least thirty (30) days prior to the intended effective termination date.

(4) For termination for any other reason, notice must be given at least one hundred and eighty (180) days prior to the intended effective termination date.

(c) Prior to the intended effective date of the termination of the lease, Lessee shall remove all of its equipment, property, and improvements, except for the Shared Antenna Structure, from the Premises and the Property in accordance with the provisions of Section 24 of this Agreement.

(d) Lessee shall continue to pay rent to Lessor until the intended effective date of the termination of the lease or until all of Lessee's equipment, property, and improvements, except for the Shared Antenna Structure, are removed and the Property has been restored to its condition as of the Commencement Date, whichever date last occurs.

## **SECTION 15. TERMINATION BY LESSOR**

(a) Lessor may terminate this Agreement during the Initial Term or any Renewal Term or Yearly Renewal for the following reasons:

(1) Lessee's default under this Agreement, subject to the provisions of Section 13 of this Agreement.

(2) Lessor decides not to renew the term of the lease pursuant to Section 4 of this Agreement.

(b) Notwithstanding anything to the contrary contained herein, Lessor shall have the option to terminate this Agreement at any time upon a determination by the Lessor, in its sole discretion, of any of the following:

(1) That it is in the best interests of the Lessor to sell or otherwise dispose of the Property; or

(2) That the Lessor's Water Tank and/or other improvements and/or facilities on the Property utilized by the Lessor are no longer needed by the Lessor and will be removed, or that removal of such improvements and/or facilities is in the best interest of the Lessor; or

(3) That continued maintenance and/or operation of Lessee's facilities and equipment on the Property is contrary to the public, safety, health, or welfare; or

(4) That the Property or any portion thereof is needed for public use or other governmental purposes; or

(5) That the Water Tank needs to be removed for repair or replacement

(c) Lessor must provide the following written notice of termination to Lessee setting forth the reason for the termination and the intended effective date of termination. Notice must be provided as follows:

(1) For termination for Lessee's default under this Agreement, notice must be given thirty (30) days prior to the effective termination date.

(2) For termination pursuant to Section 15(b)(1) or Section 15(b)(2) of this Agreement, notice must be given at least twelve (12) months prior to the intended date of termination.

(3) For termination pursuant to Section 15(b)(3) Section 15(b)(4) or Section 15(b)(5) of this Agreement, notice must be given at least thirty (30) days prior to the intended date of termination, except that a shorter notice may be given if the Mayor and Council determines that the public health, safety or welfare warrants such shorter notice.

(4) For termination for any other reason, notice must be given one hundred and eighty (180) days prior to the effective termination date.

## **SECTION 16. TAXES**

During the term of this Agreement, upon Lessee's receipt of written documentation, Lessee shall be responsible for the payment of all taxes imposed on the leasehold improvements which result from Lessee's use of the Premises, provided Lessee will be entitled to appeal any assessment.

## **SECTION 17. STORAGE PROHIBITED**

(a) Lessee shall not store any materials, equipment or vehicles on the Premises that are not listed in Exhibit "B" of this Agreement.

(b) Lessor shall have the right to remove and dispose of any materials, equipment, or vehicles from the Premises at Lessee's sole expense after Lessee's receipt of seven (7) days written notice that the materials, equipment or vehicles on the Premises are in violation of this Agreement.

## **SECTION 18. HAZARDOUS SUBSTANCES**

(a) Lessor represents that it has no knowledge of any hazardous substances on or under the Property now or in the past. Lessor shall promptly notify Lessee after obtaining any such knowledge during the Lease Term.

(b) Lessee shall not be responsible for the clean up and removal of Hazardous Substances and any related activities, including, but not limited to, the restoration of the Property related to Hazardous Substances on the Property, except to the extent that Hazardous Substances are generated by Lessee.

(c) Lessor shall require other lessees of any part of the Property to be responsible for clean up and removal of Hazardous Substances to the extent generated by such other lessee.

**SECTION 19. RADIO FREQUENCY INTERFERENCE**

(a) Where there are existing radio frequency user(s) on the Property, Lessor shall provide Lessee with a list of all existing radio frequency user(s) to allow Lessee to evaluate the potential for interference. Lessee must provide current and subsequent Lessees with its radio frequencies.

(b) Lessee must install and operate equipment of a type and frequency that will not cause radio frequency interference with other forms of radio frequency communications existing on Lessor's Property as of the date of this Agreement. Lessee warrants that its use of the Property will not interfere with existing radio frequency user(s) on the Property as long as the existing radio frequency user(s) operate and continue to operate within their frequencies and in accordance with all applicable laws and regulations.

(c) Upon receipt of written notification that Lessee's equipment causes radio frequency interference with equipment existing on the Property as of the Commencement Date, Lessee shall take all steps necessary to correct and eliminate the interference consistent with appropriate government rules and regulations.

(1) If the interference is not corrected within 24 hours of receipt of notification (or such time as the parties may agree to be reasonable in light of the magnitude of the interference and the complexity of the corrective action), Lessee shall be required to turn off the interfering piece of equipment, except as permitted in (2) below for intermittent testing consistent with FCC or other applicable regulations, until such time as the interference can be adequately remedied.

(2) Lessee shall be permitted to turn on the interfering piece of equipment for short periods of time for purposes of testing consistent with FCC or other applicable regulations.

(d) Lessor shall include the provision set forth in this Section 19 in any lease, license or any other right to any third party for use of the Property granted after the date of this Agreement. Lessor will notify Lessee prior to granting any third party the right to install and operate communications equipment on the Property. Lessor shall not be a party to or be responsible for any action or resolution between affected Lessees regarding any dispute arising out of this Section 19. Investigation, notice(s) and resolution of any such disputes shall be the sole responsibility of the affected Lessees. Failure to notify Lessee is not considered a default under this agreement and does not invalidate this agreement or any third party agreements.

**SECTION 20. INTERFERENCE WITH OPERATION OF THE PARTIES**

(a) Except as provided in subsection (c) of this Section 20, Lessor will not use any portion of the Property in any way that unreasonably interferes with the operation of Lessee or the rights of Lessee under this Agreement. If the Lessor causes unreasonable interference and it is not corrected within 24 hours of receipt of notification (or such time as the parties may agree

to be reasonable in light of the magnitude of the interference and the complexity of the corrective action), Lessee shall have the right

(1) Subject to the privileges and immunities available to the Lessor as a governmental entity, to bring a court action to enjoin such interference unless such interference is caused by Lessor's use of the Property as a water tank facility; or

(2) to terminate this Agreement for Lessor's default in accordance with the provisions of Section 13 of this Agreement immediately upon written notice.

(b) Lessee will not use any portion of the Property in any way that unreasonably interferes with the operation of Lessor or the rights of Lessor, or interferes with Lessor's maintenance or access to the Water Tank. If the Lessee causes unreasonable interference and it is not corrected within 24 hours of receipt of notification (or such time as the parties may agree to be reasonable in light of the magnitude of the interference and the complexity of the corrective action), Lessor shall have the right to bring a court action to enjoin such interference, exercise self-help to remove or otherwise eliminate the interference at Lessee's sole cost and expense, and/or to terminate this Agreement immediately upon written notice.

(c) This Section does not apply to any interference with the Lessee's operation caused by the operation or maintenance of, or changes to, the Water Tank, the Premises or Property required by applicable laws, rules, or regulations, or necessitated by the best interests of the Lessor.

## **SECTION 21. MAINTENANCE OF WATER TANK**

(a) Upon at least ninety (90) days' written notice from Lessor, Lessee, at its sole cost and expense, shall make any necessary arrangements to either temporarily protect or remove all or portions of its communications equipment on and adjacent to the Water Tank to allow for Lessor's painting or other maintenance of the Water Tank. In the event of an emergency, advance notice shall not be required.

(b) In accordance with the provisions of this Section 21(b), Lessor, Lessee and their respective contractors shall reasonably cooperate with each other in order to:

(1) Facilitate and coordinate their respective activities and obligations with respect to Lessor's maintenance and painting of the Water Tank, and

(2) Limit any disruption and disturbance to Lessee and the operation of its Communications Facility to the fullest extent possible under the circumstances.

(c) If Lessee and Lessor agree that it is reasonable to keep all or any portion of the communications equipment in place during such painting or other maintenance of the Water Tank by Lessor, any additional expense of repainting, repairing, or maintaining the Water Tank

incurred by Lessor and caused by the presence of Lessee's communications equipment shall be paid promptly by Lessee to Lessor.

(d) Should Lessor and Lessee agree that the scheduled maintenance or painting of the Water Tank will prevent Lessee from using the Water Tank for Lessee's Antenna Facility, and it is more reasonable for Lessee to temporarily relocate rather than protect its communications equipment in place, then at its own expense Lessee may install and operate temporary antenna facility (ies), including a Cell-on-Wheels ("COW"), if a mutually acceptable location on the Property can be found, subject to the City zoning ordinance and/or administrative regulations, and/or other applicable laws, rules, and regulations then in effect. If it is necessary for more than one carrier to relocate, Lessee shall cooperate with the other affected lessees to provide for one or more temporary antenna facility(ies) that will allow for collocation by all affected lessees. Lessor, after consultation with Lessee, shall have final authority on the location, size, and other physical characteristics of the temporary facility. Upon completion of the work, Lessee shall reinstall its' equipment on the water tank within fifteen (15) days of notice by Lessor that the work has been completed.

(e) Notwithstanding anything to the contrary in this Agreement, Lessee shall have the continuing right to access its Communications Facility while Lessor performs maintenance on or paints the Water Tank as long as the access does not interfere with the Lessor's work or with the operation of the Water Tank.

## **22. ACCOMMODATION OF OTHER CARRIERS**

(a) Lessee acknowledges that other carriers are, and will be, using the Property for similar wireless communication uses. Lessee agrees to timely cooperate with Lessor and such third party users in order to maximize the potential use of the Property; however, such cooperation shall not cause Lessee to incur unreasonable expenses or permanently and materially alter or interfere with Lessee's then current use of the Premises.

(b) If Lessee declines to make adjustments or modifications based on cost or technical grounds under Section 22 (a) above, Lessee will provide to the Lessor and such third party user(s) upon request a detailed written explanation.

## **SECTION 23. GOVERNING LAW**

This Agreement shall be governed by Maryland law. The parties, by execution of this Agreement, consent to the jurisdiction of the Maryland State courts with respect to any dispute arising out of this Agreement, and further consent to venue in Montgomery County, Maryland.

**SECTION 24. REMOVAL OF LESSEE'S EQUIPMENT**

(a) Prior to the expiration of any Lease Term under this Agreement, or any earlier termination of this Agreement, Lessee shall at its own cost and expense, remove from the Premises and the Property its Communications Facility and other property and equipment, and restore the Premises and the Property to its condition existing on the Commencement Date, including the replacement of trees removed by Lessee if desired by Lessor, but excluding the Shared Antenna Structure Lessee attached to the Water Tank which shall remain and be restored to its condition as approved by Lessor in Section 8 of this agreement, casualty not caused by Lessee and reasonable wear and tear excepted.

(b) If Lessee's Communications Facility or other property remains on the Property after expiration of any Lease Term or any earlier termination of this Agreement, Lessee shall pay an amount to the City equivalent to Rent at the last existing monthly rate until such time as the removal of said property is completed or declared to be forfeited. Lessor may, by written notice to Lessee, declare all such property and equipment of Lessee to be forfeited, and Lessor may retain or dispose of such property and equipment as it deems fit, without any further responsibility to Lessee. Such forfeiture of property and equipment shall not relieve Lessee of its responsibility for any damage to the Property caused by Lessee's use of the Property or operation of its Communications Facility, nor relieve Lessee of its responsibility to pay any outstanding rent. Cost of removal and/or disposal of Lessee's forfeited Communications Facility or property and equipment by Lessor shall be reimbursed by Lessee, including through the use of Lessee's security deposit.

**SECTION 25. SELF-HELP**

If the Lessor exercises its right to self-help under this Agreement, Lessor shall not be responsible for any damage caused to Lessee's property or operation and Lessor shall be entitled to reimbursement from Lessee for the cost of exercising such self-help.

**SECTION 26. SALE, ASSIGNMENT, TRANSFER**

(a) This Agreement may be sold, assigned, or transferred by Lessee at any time without the consent of Lessor to a parent, or wholly-owned subsidiary of Lessee, or to a successor to the primary business offered by Lessee; however, Lessee shall notify Lessor in writing within thirty (30) days indicating the nature of the transaction and of the corporate contact information for the parent, or wholly-owned subsidiary or successor.

(b) Lessee may otherwise sell, assign or transfer its rights under this Agreement only with Lessor's consent. Upon any such sale, assignment or transfer requiring Lessor consent, Lessee shall be relieved of all liabilities and obligations hereunder, and Lessor shall look solely to the assignee for performance under this Agreement and all obligations hereunder, provided assignee

executes an assignment and assumption agreement in a commercially reasonable form. Assignee must submit a replacement security deposit in the form of a cash bond or demand letter of credit prior to transfer or assignment and prior to Lessor's release of Lessee's cash bond or demand letter of credit.

**SECTION 27. QUIET ENJOYMENT**

Lessor covenants that Lessee, on paying the rent and performing the covenants herein shall peaceably and quietly have, hold and enjoy the leased Premises.

**SECTION 28. GOOD TITLE**

Lessor covenants that Lessor is seized of good and sufficient title and interest to the Property and has full authority to enter into and execute this Agreement. Lessor further covenants that there are no other liens, judgments, impediments of title, covenants, easements or restrictions which prevent the use of the Premises by the Lessee as set forth above.

**SECTION 29. ENTIRE AGREEMENT; NO ORAL STATEMENTS**

It is agreed and understood that this Agreement contains all agreements, promises and understandings between Lessor and Lessee and that no oral agreements, promises or understandings shall be binding upon either Lessor or Lessee in any dispute, controversy or proceeding at law, and any addition, variation or modification to this Agreement shall be void and ineffective unless made in writing and signed by both parties.

**SECTION 30. NOTICES**

(a) All notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested, or if personally delivered or sent by next-business-day delivery via a nationally recognized overnight courier, to the following address (es) (or any other address that the party to be notified may designate to the sender by like notice):

Lessor:

Mayor and Council of Rockville  
111 Maryland Avenue  
Rockville, Maryland 20850

Telecommunications Manager  
City of Rockville  
111 Maryland Avenue  
Rockville, Maryland 20850

Director of Public Works  
City of Rockville  
111 Maryland Avenue  
Rockville, Maryland 20850

And a copy to

City Attorney  
City of Rockville  
111 Maryland Avenue  
Rockville, Maryland 20850

Lessee: Cellco Partnership  
d/b/a Verizon Wireless  
180 Washington Valley Road  
Bedminster, New Jersey 07921  
Attention: Network Real Estate

(b) Lessee can be reached 24 hours a day seven days per week at Lessee's Network Operations Control Center (NOCC) at 1-800-852-2671. Lessee shall notify Lessor immediately if this phone number changes. Lessee shall notify Lessor of its primary contact person for this agreement, including name address, phone number, and e-mail address. Lessee shall notify Lessor immediately if this contact person and his/her contact information changes.

### **SECTION 31. SUBORDINATION**

At Lessor's option, this Agreement shall be subordinate to any mortgage by Lessor which from time to time may encumber all or part of the Property or right-of-way; provided, however, Lessor shall provide Lessee with a fully executed subordination, non-disturbance and attornment agreement prior to any subordination, and every such mortgage shall recognize the validity of this Agreement in the event of a foreclosure of Lessor's interest and also Lessee's right to remain in occupancy of and have access to the Property as long as Lessee is not in default of this Agreement. Lessee shall execute whatever instruments may reasonably be required to evidence this subordination clause. In the event the Property is encumbered by a mortgage, the Lessor immediately after this Agreement is executed, will obtain and furnish to Lessee, a non-disturbance and attornment agreement for each such mortgage in recordable form.

### **SECTION 32. NO PAYMENT OR GIFT TO LESSOR OFFICER, EMPLOYEE**

Lessee represents and warrants that no officer, employee or agent of Lessor has been or will be paid any sum or offered any gift, gratuity, employment or other consideration by or from Lessee, its affiliates or agents in connection with assistance in obtaining, arranging, negotiation or continuation of this Agreement.

**SECTION 33. NO PAYMENT OR GIFT TO LESSEE OFFICER, EMPLOYEE**

Lessor represents and warrants that no officer, employee or agent of Lessee has been or will be paid any sum or offered any gift, gratuity, employment or other consideration by or from Lessor, its affiliates or agents in connection with assistance in obtaining, arranging, negotiation or continuation of this Agreement.

**SECTION 34. FAILURE TO PERFORM**

Any failure to perform or delay in performance of any act required herein, shall be excused and the time for performance extended to the extent such failure results from events beyond the control of the party who was to perform such act.

**SECTION 35. NO UNREASONABLE DELAY, CONDITION**

Any consent, approval or similar act to be performed hereunder shall not be unreasonably or unduly withheld, delayed, conditioned or denied.

**SECTION 36. NO RECORDATION**

This Agreement shall not be recorded among the Land Records for Montgomery County, Maryland without Lessor's consent.

**SECTION 37. WAIVER OF LESSOR'S LIEN**

Except as provided in Section 24 of this Agreement, Lessor hereby waives any and all lien rights it may have, statutory or otherwise, concerning the Communications Equipment or any portion thereof, which shall be deemed personal property for the purposes of this Agreement, whether or not the same is deemed real or personal property under applicable laws, and Lessor gives Lessee and secured parties the right to remove all or any portion of the same, except for the Shared Antenna Structure Lessee constructs on the Water Tank located on the Property, in a mutually acceptable time and manner, not to be unreasonably conditioned, delayed, denied or withheld, whether before or after a default under this Agreement, in accordance with the provisions of this Agreement .

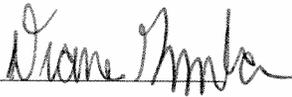
**SECTION 38. CAPTIONS AND HEADINGS**

The captions and headings of sections throughout this Agreement are intended solely to facilitate reading and reference. The captions and headings shall not affect the meaning or interpretation of this Agreement.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their respective seals the day and year first above written.

ATTEST:

CELLCO PARTNERSHIP  
d/b/a Verizon Wireless  
Lessee

  
\_\_\_\_\_

By:   
\_\_\_\_\_

David R. Heverling  
Area Vice President Network

92810

ATTEST:

THE MAYOR AND COUNCIL OF ROCKVILLE,  
Lessor

\_\_\_\_\_  
Claire F. Funkhouser,  
City Clerk

By: \_\_\_\_\_  
Scott Ullery, City Manager

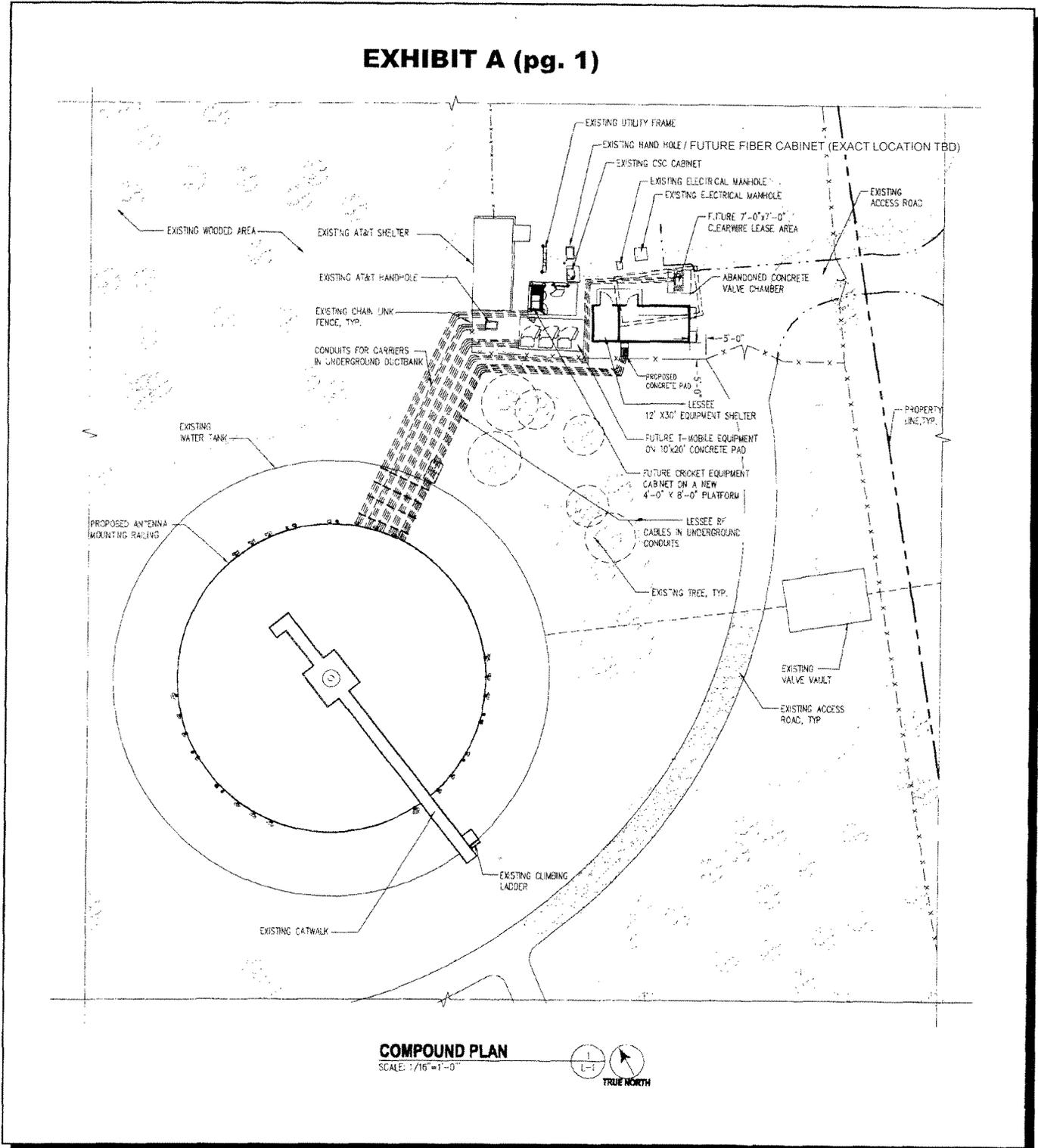
**EXHIBIT "A"**

Engineer's Drawings:

1. Site location
2. Site Plan (showing Property and Premises), location of existing improvements and proposed improvements

See Attached (3 pages)

**EXHIBIT A (pg. 1)**



**COMPOUND PLAN**

SCALE: 1/16" = 1'-0"



**TELEGENT ENGINEERING INC.**

1718 W. JARRETTSVILLE ROAD  
 JARRETTSVILLE, MD 21084  
 PHONE: 410-692-5816  
 FAX: 410-692-5853  
 WWW.TEL-ENG.COM

**entrex**  
 communication services, inc.

1575 Eye Street, N.W. Suite 350  
 WASHINGTON, D.C. 20005  
 PHONE: (202)408-0960  
 FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
01-26-10	LEASE EXHIBIT REVIEW	
01-27-10	LEASE EXHIBIT REVIEW	

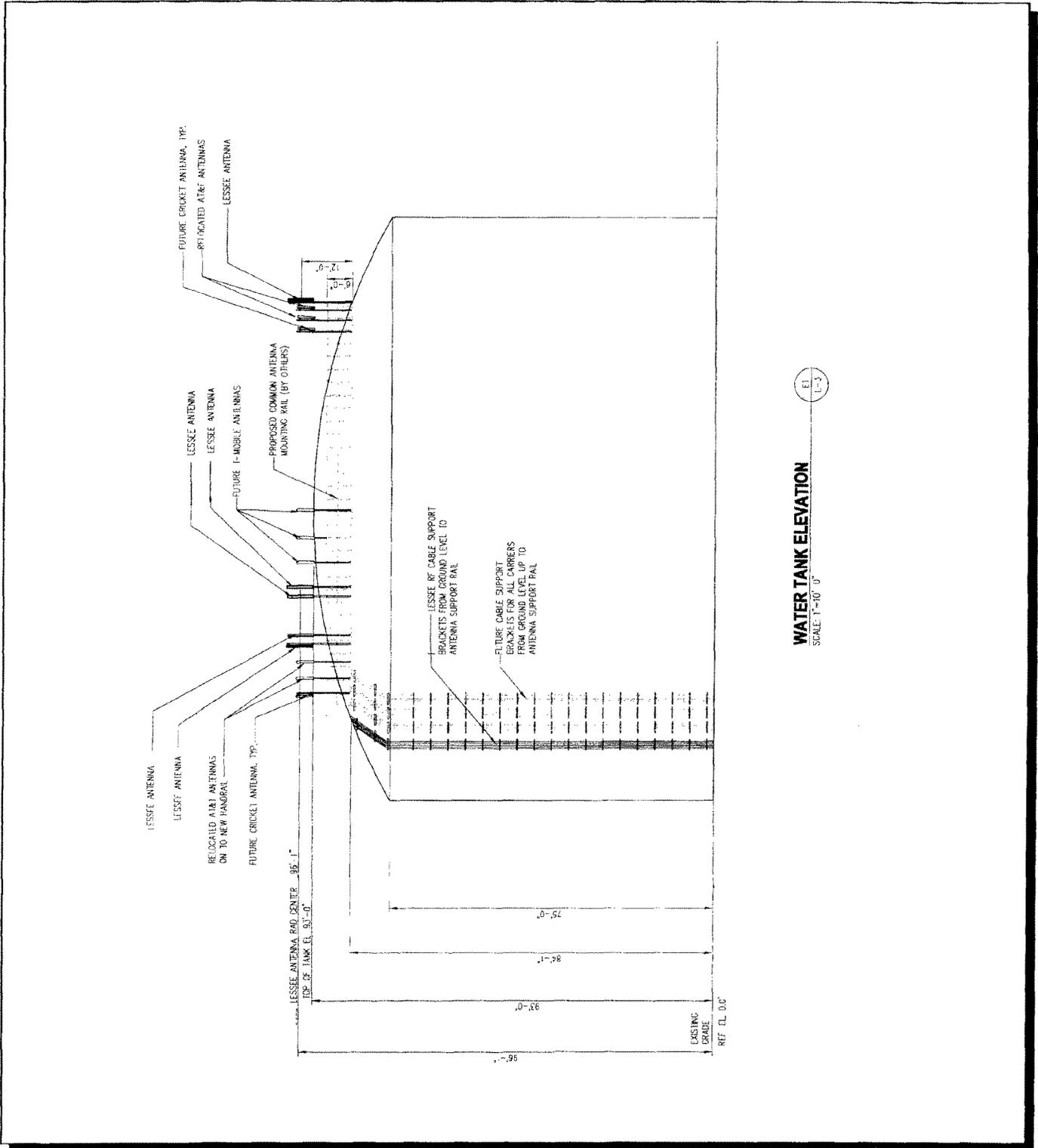
**LEASE EXHIBIT**

**MARIAN**  
 13902 GLEN MILL ROAD  
 ROCKVILLE, MD 20850

TITLE:  
**COMPOUND PLAN**

1102.054 | L-1 | SHEET 1 OF 3





**TELEGEN  
ENGINEERING  
INC.**

1718 W. JARRETTSVILLE ROAD  
JARRETTSVILLE, MD 21084  
PHONE: 410-692-5816  
FAX: 410-692-5853  
WWW.TEL-ENG.COM

**entrex**  
communication services, inc.

1575 Eye Street, N.W. Suite 350  
WASHINGTON, D.C. 20005  
PHONE: (202)408-0960  
FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
01-26-10	LEASE EXHIBIT REVIEW	
01-27-10	LEASE EXHIBIT REVIEW	

**LEASE EXHIBIT**

**MARIAN**  
13902 GLEN MILL ROAD  
ROCKVILLE, MD 20850

TITLE: **WATER TANK ELEVATION**

1102.054 L-3 SHEET 3 OF 3

**EXHIBIT "B"**

Proposed Improvements

1. List of Lessee's equipment to be placed on the Property and Premises
2. Cut sheets and drawings or photographs indicating number of each, dimensions, elevations, colors, materials, manner of attachment

See Attached (12 pages)

**EXHIBIT B (page 1)**

List of Lessee's equipment to be placed on the Property and Premises

**Tank Equipment**

- *Antennas*
  - Three (3) CSS X7-665 or similar panel antennas (each approx. 72" H x 12.5" W x 7" D)
  - Three (3) Amphenol Antel BXA-80063-6CF or similar panel antennas (each approx. 71" H x 11.2" W x 5.2" D)
  - Six (6) Amphenol Antel LPA-185063-12CF or similar panel antennas (each approx. 72.4" H x 6.1" W x 5.2" D)
  - Associated mounting hardware
- *Cabling*
  - Twelve (12) Andrew LDF12-50 (2-1/4" diameter) or similar coaxial cables
  - Six (6) ADC DD1900 or similar cable signal amplifiers (each approx. 11.7" H x 11.4" W x 2.8" D)
  - Associated connectors, jumpers, grounding kits, weatherproofing kits, cable identification tape, and mounting hardware

**Ground Equipment**

- One (1) VFP, Inc. Model # 2686 or similar equipment shelter (approx. 12'x30') housing radio cabinets, batteries, and related equipment
- One (1) Katolight VSED60F\*J4T3 or similar diesel generator (60kW, 210 gallon) inside Lessee's equipment shelter
- Two (2) 5-ton, 60,000-BTU HVAC units, mounted to exterior of Lessee's equipment shelter
- Two (2) GPS units (each approx. 5" H x 3.2" diam.) and two (2) Andrew LDF4-50A (1/2") cables, mounted to Lessee's equipment shelter
- Cables in underground conduits running from Lessee's equipment shelter to Lessor's Water Tank with related ductbanks
- Electrical service cabling, conduit, meter and disconnect switch
- Telephone service cabling, conduit, and meter
- Electronic and telephonic utilities to which Lessee will connect, via underground conduits, to existing and/or future third-party utilities subject to Lessor's approval of plans as provided in paragraph 8(b)(1) of the Lease.



**X7C-665**  
65° Azimuth Beam, 72 inches

Directing our energies for you.

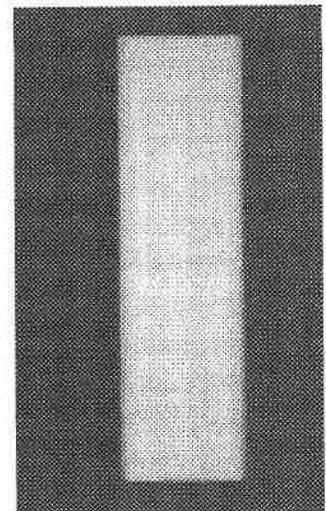
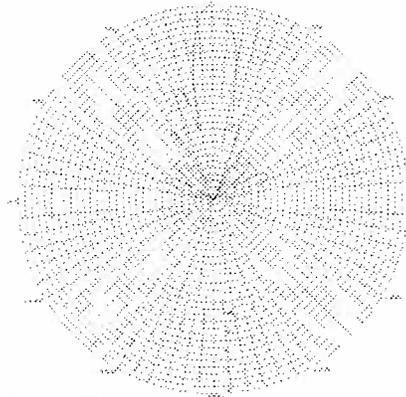
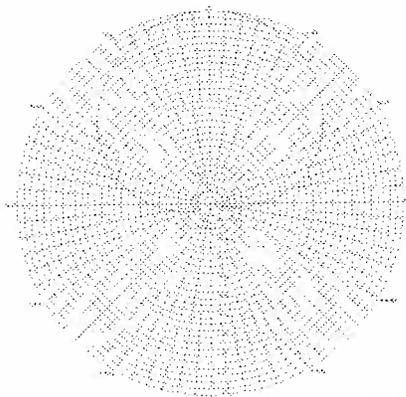
698-896 MHz Band

**Electrical Specifications**

Frequency	698-896 MHz
Polarization	Slant +/- 45
Gain @ 698 MHz	13.2 dBd
Gain @ 752 MHz	13.5 dBd
Gain @ 782 MHz	13.7 dBd
Gain @ 896 MHz	14.3 dBd
Horizontal Beam (3dB Points)	65°
Vertical Beam (3dB Points)	10°
Electrical Downtilt Options	0, 2, 4 or 6°
VSWR	<1.40:1
Front-to-Back at Horizon	>30 dB
Upper Side Lobe Suppression	<-18 dB
Impedance	50 Ohms
Power Input Per Connector (W CW)	500 Watts
Isolation	< -28 dB
Intermodulation (2x20W)	<-150 dBc

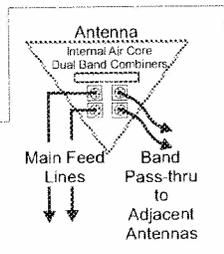
**Mechanical Specifications**

Input Connector (female)	Two Back Mounted 7/16 DIN (silver finish)
Antenna Dimensions (inches)	72 x 12.5 x 7
Antenna Weight	27.4 lbs
Bracket Weight	13.4 lbs
Lightning Protection	Direct Ground
RF Distribution	Printed Microstrip Substrate
Radome	Ultra High-Strength Luran
Weatherability	UV Stabilized, ASTM D1925
Radome Water Absorption	ASTM D570, 0.45%
Environmental	MIL-STD-810E
Wind Survival	150 mph
Front Wind Load at 100 mph	177.4 lbs
Front Flat Plate Equivalent	3.6 sq-ft. (c=2)
Mounting Brackets	Fits 2.5 to 3 Inch Schedule 40 Pipe
Mechanical Downtilt Range	0-12°
Clamps/Bolts	Hot Dip Galvanized Steel/Stainless Steel



**Available with Opt "i"**

➤ The Opt "i" antenna option provides Integrated Diplexers that reduce mainline cables and eliminate separate external devices.



**5 Year Warranty**

**Ordering Information & Options**

- X7C-665-x                    "-x" is a placeholder for the built-in fixed electrical downtilt in degrees, set to 0, 2, 4 or 6
- X7C-665-xi                to add the Opt "i" option for integrated diplexers, add "i" to model number
- X7C-665-xi-bot         for bottom mounted connectors, add "-bot" (otherwise antenna comes standard with back mounted connectors)
- X7C-665-xi-bot-#        add a "-#" to add a 1/2" RF cable, where "#" is the cable length, "j2" is 2 meters, "j4" is 4 meters, "j6" is 6 meters...



**BXA-80063-6CF-EDIN-X**

**EXHIBIT B (pg. 3)**

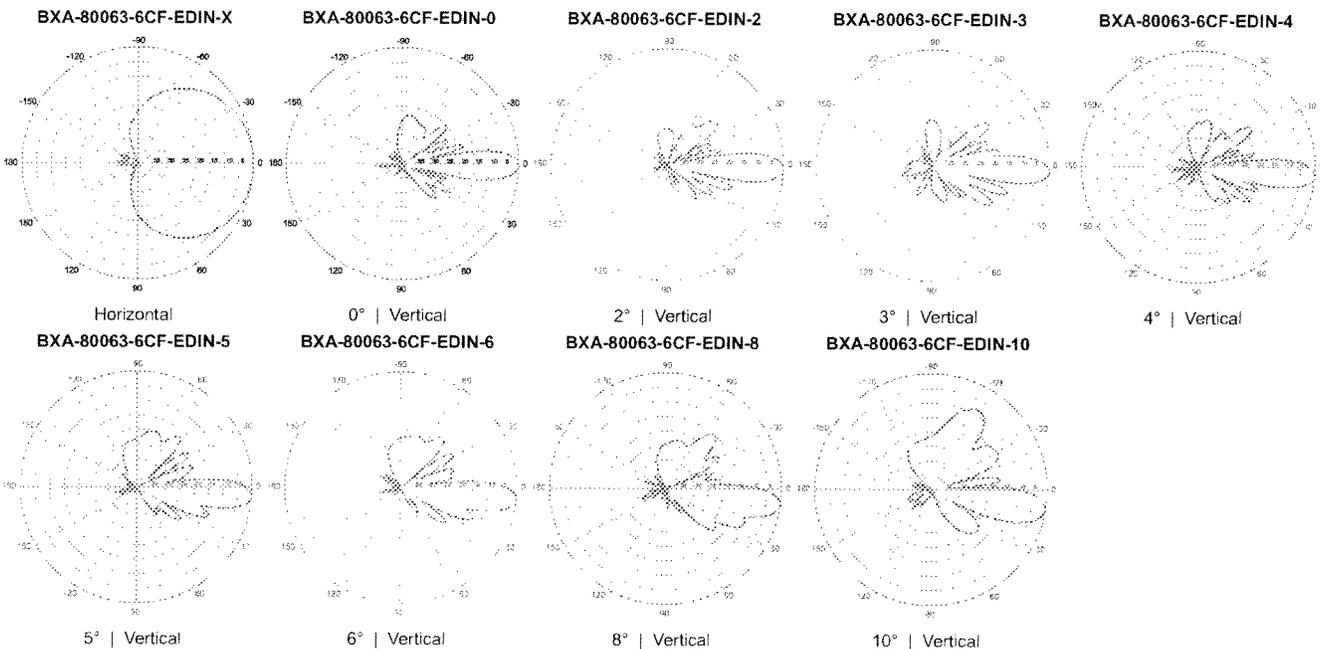
X-Pol | FET Panel | 63° | 14.5 dBd

Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.



Performance Parameters	
Frequency bands	806-900 MHz*
*Optional frequency band for iDEN	806-941 MHz (specify when ordering)
Polarization	±45°
Horizontal beamwidth	63°
Vertical beamwidth	11°
Gain	14.5 dBd (16.6 dBi)
Electrical downtilt (X)	0, 2, 3, 4, 5, 6, 8, 10
Impedance	50Ω
VSWR	≤1.4:1
Upper sidelobe suppression (0°)	-18.2 dB
Front-to-back ratio (+/-30°)	-36.3 dB
Null fill	5% (-26.02 dB)
Isolation between ports	< -25 dB
Input power	500 W
Lightning protection	Direct Ground
Connector(s)	2 Ports / EDIN or NE / Female / Center (Back)
Mechanical Dimensions	
Dimensions Length x Width x Depth	1804 x 285 x 132 mm      71.0 x 11.2 x 5.2 in
Depth with z-brackets	172 mm      6.8 in
Weight without mounting brackets	7.9 kg      17 lbs
Survival wind speed	> 201 km/hr      > 125 mph
Wind area	Front: 0.51 m <sup>2</sup> Side: 0.24 m <sup>2</sup> Front: 5.5 ft <sup>2</sup> Side: 2.6 ft <sup>2</sup>
Wind load @ 161 km/hr (100 mph)	Front: 759 N    Side: 391 N      Front: 169 lbf    Side: 89 lbf
Mounting Options	
3-Point Mounting Bracket Kit	36210003      50-160 mm    2.0-6.3 in      6.3 kg    14 lbs
3-Point Downtilt Bracket Kit (0-14°)	36210004      50-160 mm    2.0-6.3 in      7.3 kg    16 lbs
Downtilt Mounting Applications	A mounting bracket and downtilt bracket kit must be ordered for downtilt applications
Concealment Configurations	For concealment configurations, order BXA-80063-6CF-EDIN-X-FP



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

**Slant +/- 45° Dual Polarized, Panel 63° / 20.5 dBi**

**BXA-185063/12CF**

*When ordering replace "\_\_\_" with connector type.*

**Mechanical specifications**

Length	1840 mm	72.4 in
Width	154 mm	6.1 in
Depth	105 mm	4.1 in
Depth with t-bracket	133 mm	5.2 in
4) Weight	6.8 kg	15.0 lbs
Wind Area		
Fore/Aft	0.28 m <sup>2</sup>	3.1 ft <sup>2</sup>
Side	0.19 m <sup>2</sup>	2.1 ft <sup>2</sup>
Rated Wind Velocity (Safety factor 2.0)		
	>201 km/hr	>125 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	460 N	103.4 lbs
Side	304 N	68.3 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

**Mounting and Downtilting**

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in).

Mounting bracket kit #26799997  
Downtilt bracket kit #26799999

The downtilt bracket kit includes the mounting bracket kit.

**Electrical specifications**

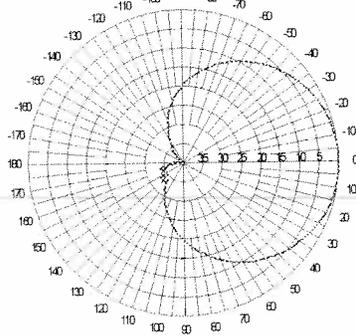
Frequency Range	1850-1990 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 2 ports / center
1) VSWR	≤ 1.4:1
Polarization	Slant ± 45°
1) Isolation Between Ports	< -30 dB
1) Gain	20.5 dBi
2) Power Rating	250 W
1) Half Power Angle	
H-Plane	63°
E-Plane	5°
1) Electrical Downtilt	0°
1) Null Fill	5%
Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,597,324 B2

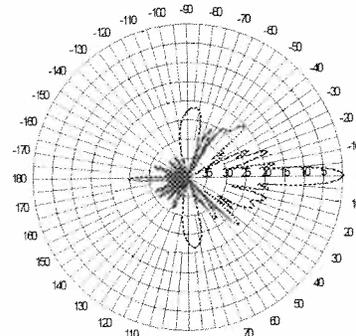
- 1) Typical values.
- 2) Power rating limited by connector only.
- 3) NE indicates an elongated N connector  
E-DIN indicates an elongated DIN connector.
- 4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

**Radiation pattern<sup>1)</sup>**



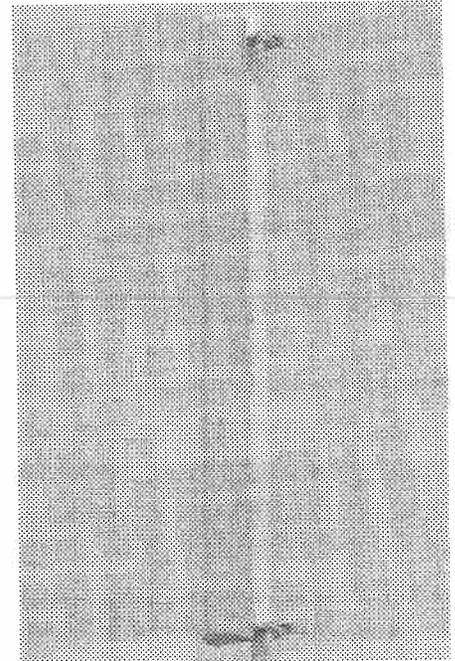
Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



**Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:**

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad bandwidth and superior performance.
- Air as insulation for virtually no internal signal loss.

*This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.*

**Antenna available with center-fed connectors only.**

CF Denotes a Center-Fed Connector.

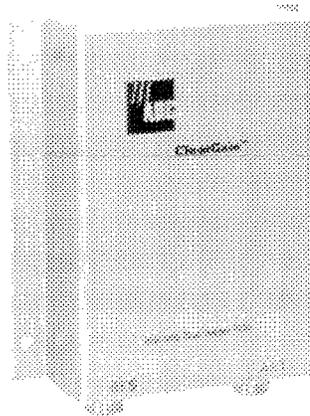
**1850-1990 MHz**



Revision Date: 7/11/07

## ClearGain® Tower-Mounted Amplifiers

Americas



As mobile usage continues to increase, service providers are faced with the challenge of optimizing and expanding their wireless networks to provide new and existing services. ADC's ClearGain® Tower-Mounted Amplifiers (TMAs) minimize the cost of network expansion and improve quality of service, allowing service providers to increase profitability from new and existing services.

The ClearGain TMAs improve signal quality by boosting the uplink signal of a mobile system to increase receiver performance and improve overall coverage.

### Features:

- Provides amplification of the Band
- Highly advanced LNA amplifies RX signal for improved receiver performance and increase in coverage
- Dual duplex feature reduces the number of feeder cable runs by providing simultaneous operation of TX and RX with low TX loss
- Full Band feature provides amplification of the entire band
- Advanced filtering maintains the lowest possible noise figure for improved quality of service
- Slim, stackable design conserves tower space and reduces tower-related costs
- Seamless aluminum sleeve construction protects components from the elements
- Modular system is fully compatible with all base stations
- Power and alarming for up to six masthead units is provided from a single unit at the base station

SPEC SHEET



[www.adc.com](http://www.adc.com) • +1-952-938-8080 • 1-800-366-3891



# ClearGain® Tower-Mounted Amplifiers Americas

ADC • Tower-Mounted ClearGain® Tower-Mounted Amplifiers

## Introduction

Unacceptable network quality is one of the main reasons for mobile subscriber churn. With industry churn at their current rates, a service provider's entire customer base could be lost in as few as three years. The cost of acquiring new subscribers to replace the existing customer base can be enormous. Improvements in quality of service can directly impact a service provider's profitability through the cost savings associated with increased subscriber retention and the additional revenue gained from increased billable minutes of use resulting from improved signal quality.

While subscribers are willing to pay a premium for data services, improved quality of service is necessary to provide new data services. Due to the tradeoff between bit rate and bandwidth inherent to data services, improved signal quality is required to achieve the same level of performance at even higher data rates. ADC's ClearGain Tower-Mounted Amplifiers help provide this improvement in signal quality.

TMA's improve signal quality by boosting the uplink (RX) signal of a mobile system immediately after the antenna. This compensates for the loss in signal strength that occurs when the signal is passed through the coaxial feeder cable to the base transceiver station (BTS) at the base of the tower. ClearGain TMA's perform this amplification with the lowest possible noise contribution, resulting in a substantial increase in receiver performance and an improvement in overall coverage. These improvements in quality of service allow mobile subscribers to place more calls, make longer calls, and successfully complete calls in an expanded geographic area, resulting in increased revenue.

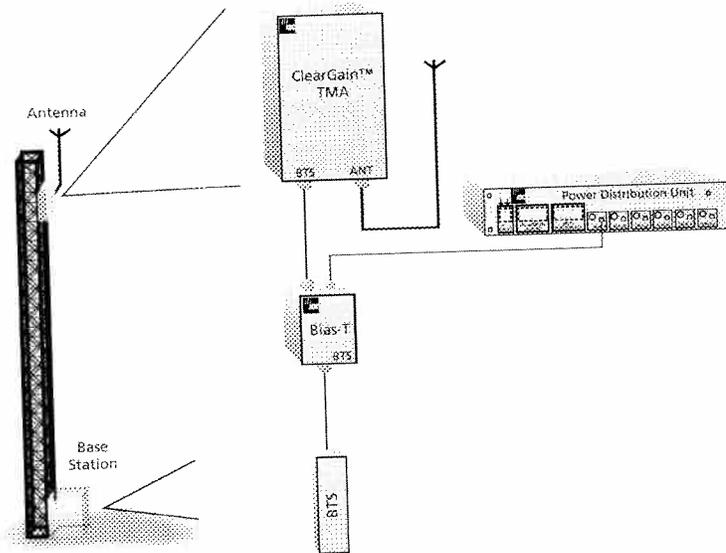
## System Overview

The ClearGain TMA system is modular, consisting of a Masthead Unit (MHU), a Power Distribution Unit (PDU) and a Bias-T Unit. This system provides full compatibility with all base stations. The ClearGain MHU offers dual duplex operation and incorporates a highly advanced fixed-gain, low-noise amplifier (LNA) and high-performance filters for added reliability. The MHU amplifies each band to maximize signal quality and optimize coverage.

The ClearGain MHU features a slim, lightweight design. This allows two ClearGain TMA's to be mounted with one set of brackets thereby, conserving valuable and costly tower space and reducing clutter on the tower. The TMA is protected with a strong, aluminum sleeve construction designed to ensure superior weather protection and resistance to corrosion, resulting in increased reliability.

In the ClearGain TMA system, DC power is supplied to the MHU from a ClearGain PDU. The PDU also provides alarming and monitoring of the feeder cable and up to six MHU's from a single unit. The flexible design of the ClearGain PDU allows it to be rack- or wall-mounted on the side of a BTS cabinet.

An external Bias-T Unit is used in conjunction with the ClearGain PDU. The Bias-T inserts DC power onto the coaxial cable and extracts alarm and monitoring signals from the coaxial cable.





# ClearGain® Tower-Mounted Amplifiers

Americas

## DD1900 Full Band Typical Specifications

### ELECTRICAL

Nominal Impedance of RF Inputs and Outputs:	50 Ohm
Frequency Range	
TX:	1930-1990 MHz
RX:	1850-1910 MHz
Passband (RX)	
Gain:	12 dB
Noise Figure:	1.6 dB
Dynamic Range	
Input at 1 dB Gain Compression:	+3 dBm
IIP3:	+13 dBm
Max Input Power:	+10 dBm
1915 MHz Rejection:	<15 dB
1916 MHz Rejection:	<30 dB
Bypass Insertion Loss:	2.0 dB
Isolation in Tx Path:	80 dB
Rejection 824-894 MHz:	80 dB
Insertion Loss of TX Path (TX to Antenna):	.4 dB
Passband Return Loss	
TX Band:	>18 dB
RX Band:	>18 dB
Intermodulation:	-120 dBm
Maximum Input Power (RMS Power):	250 W
Tx Filter Rejection in Rx Band:	40 dB

### POWER

Operational Voltage:	7 to 15 Vdc
Operational Current:	140 ± 10 mA
Alarm Current Level:	350 ± 20 mA

### PHYSICAL

Dimensions (HxWxD):	297 mm x 287 mm x 70 mm
Weight:	5.5 kg (12.1 lbs.)
Color:	Silver
Housing:	Aluminum

### CONNECTORS

Antenna Connector:	7/16 DIN female
BTS Connector:	7/16 DIN female

### ENVIRONMENTAL

Operating Temperature:	-40°C to +60°C
Lightning Protection:	IEC61000-4-5
Vibration	
Storage:	ETS3019-1-1
Transport:	ETS3019-1-2
Operation:	ETS3019-1-3

### REGULATORY

EMC:	ETS300 342-2
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### APPROVALS

FCC:	Part 15, Class A
UL:	1950

### QUALITY

MTBF:	900,000 hours
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ClearGain® Tower-Mounted Amplifiers



2-1/4" Foam Dielectric,  
LDF Series – 50-ohm



LDF12-50

Description	Type No.
<b>Cable Ordering Information</b>	
<b>Standard Cable</b>	
2-1/4" Standard Cable, Standard Jacket	LDF12-50
<b>Fire Retardant Cable</b>	
2-1/4" Fire Retardant Jacket (CATVR)	LDF12RN-50
<b>Low VSWR Cable</b>	
2-1/4" Low VSWR, specify operating band	LDF12P-50-(**)

\*\* Insert suffix number from "Low VSWR Specifications" table, page 525.

**Characteristics**

<b>Electrical</b>	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	2.2
Velocity, percent	88
Peak Power Rating, kW	425
dc Resistance, ohms/1000 ft (1000 m)	
Inner	0.21 (0.68)
Outer	0.09 (0.29)
dc Breakdown, volts	13000
Jacket Spark, volts RMS	10000
Capacitance, pF/ft (m)	22.7 (74.6)
Inductance, µH/ft (m)	0.058 (0.189)
<b>Mechanical</b>	
Outer Conductor	Copper
Inner Conductor	Copper Tube
Diameter over Jacket, in (mm)	2.35 (60)
Diameter over Copper Outer Conductor, in (mm)	2.2 (55.9)
Diameter Inner Conductor, in (mm)	0.835 (21.2)
Minimum Bending Radius, in (mm)	22 (560)
One-Time Bending Radius, in (mm)	9.5 (240)
Number of Bends, minimum (typical)	15 (50)
Bending Moment, lb-ft (N·m)	70 (95)
Cable Weight, lb/ft (kg/m)	1.22 (1.82)
Tensile Strength, lb (kg)	1500 (681)
Flat Plate Crush Strength, lb/in (kg/mm)	150 (2.7)

Attenuation and Average Power

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Average Power, kW
0.5	0.011	0.037	321.0
1	0.016	0.052	227.0
1.5	0.020	0.064	185.0
2	0.023	0.074	160.0
10	0.052	0.169	70.3
20	0.074	0.242	49.2
30	0.091	0.299	39.8
50	0.119	0.391	30.4
88	0.161	0.529	22.5
100	0.173	0.566	21.0
108	0.180	0.591	20.1
150	0.215	0.707	16.8
174	0.234	0.767	15.5
200	0.253	0.829	14.4
300	0.317	1.04	11.4
400	0.374	1.23	9.7
450	0.400	1.31	9.06
500	0.426	1.40	8.52
512	0.432	1.42	8.40
600	0.474	1.55	7.66
700	0.519	1.70	6.99
800	0.562	1.84	6.45
824	0.572	1.88	6.34
894	0.601	1.97	6.03
960	0.628	2.06	5.78
1000	0.644	2.11	5.64
1250	0.739	2.42	4.91
1500	0.828	2.72	4.38
1700	0.896	2.94	4.05
1800	0.929	3.05	3.91
2000	0.994	3.26	3.65
2100	1.03	3.37	3.54
2200	1.06	3.47	3.43

**Standard Conditions:**

For Attenuation. VSWR 1.0, ambient temperature 20°C (68°F).  
For Average Power. VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F); no solar loading.



Revised 9/00

Customer Service Center - Call toll-free from: • U.S.A., Canada and Mexico 1-800-255-1479



1/2" Foam Dielectric,  
LDF Series – 50-ohm



LDF4-50A

HELIAX® Coaxial Cables

Description	Type No.
<b>Cable Ordering Information</b>	
<b>Standard Cable</b>	
1/2" Standard Cable, Standard Jacket	LDF4-50A
<b>Fire Retardant Cables</b>	
1/2" Fire Retardant Jacket (CATVX)	LDF4RN-50A
1/2" Fire Retardant Jacket (CATVR)	LDF4RN-50A
<b>Low VSWR and Specialized Cables</b>	
1/2" Low VSWR, specify operating band	LDF4P-50A-(**)
Phase Stabilized and Phase Measured Cable	See page 590
<b>Jumper Cable Assemblies</b> – See page 584	
** Insert suffix number from "Low VSWR Specifications" table, page 498	
<b>Characteristics</b>	
<b>Electrical</b>	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	8.8
Velocity, percent	88
Peak Power Rating, kW	40
dc Resistance, ohms/1000 ft (1000 m)	
Inner	0.45 (1.48)
Outer	0.58 (1.90)
dc Breakdown, volts	4000
Jacket Spark, volts RMS	8000
Capacitance, pF/ft (m)	23.1 (75.8)
Inductance, µH/ft (m)	0.058 (0.19)
<b>Mechanical</b>	
Outer Conductor	Copper
Inner Conductor	Copper-Clad Aluminum
Diameter over Jacket, in (mm)	0.63 (16)
Diameter over Copper Outer Conductor, in (mm)	0.55 (14)
Diameter Inner Conductor, in (mm)	0.189 (4.6)
Nominal Inside Transverse Dimensions, cm	1.11
Minimum Bending Radius, in (mm)	5 (125)
Number of Bends, minimum (typical)	15 (50)
Bending Moment, lb-ft (N·m)	2.8 (3.8)
Cable Weight, lb/ft (kg/m)	0.15 (0.22)
Tensile Strength, lb (kg)	250 (113)
Flat Plate Crush Strength, lb/in (kg/mm)	110 (2.0)

Attenuation and Average Power Ratings

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Average Power, kW
0.5	0.045	0.149	40.0
1	0.064	0.211	35.8
1.5	0.079	0.259	29.2
2	0.091	0.299	25.3
10	0.205	0.672	11.3
20	0.291	0.954	7.93
30	0.357	1.17	6.46
50	0.463	1.52	4.98
88	0.619	2.03	3.73
100	0.661	2.17	3.49
108	0.688	2.26	3.36
150	0.815	2.67	2.83
174	0.880	2.89	2.62
200	0.946	3.10	2.44
300	1.17	3.83	1.97
400	1.36	4.46	1.70
450	1.45	4.75	1.59
500	1.53	5.02	1.51
512	1.55	5.08	1.49
600	1.69	5.53	1.37
700	1.83	6.01	1.26
800	1.97	6.46	1.17
824	2.00	6.56	1.15
894	2.09	6.85	1.10
960	2.17	7.12	1.06
1000	2.22	7.28	1.04
1250	2.51	8.23	0.921
1500	2.77	9.09	0.833
1700	2.97	9.74	0.777
1800	3.07	10.1	0.753
2000	3.25	10.7	0.710
2100	3.34	11.0	0.691
2200	3.43	11.2	0.673
2300	3.52	11.5	0.657
3000	4.09	13.4	0.565
3400	4.39	14.4	0.526
4000	4.82	15.8	0.479
5000	5.49	18.0	0.421
6000	6.11	20.1	0.378
8000	7.26	23.8	0.318
8800	7.69	25.2	0.300

Standard Conditions:

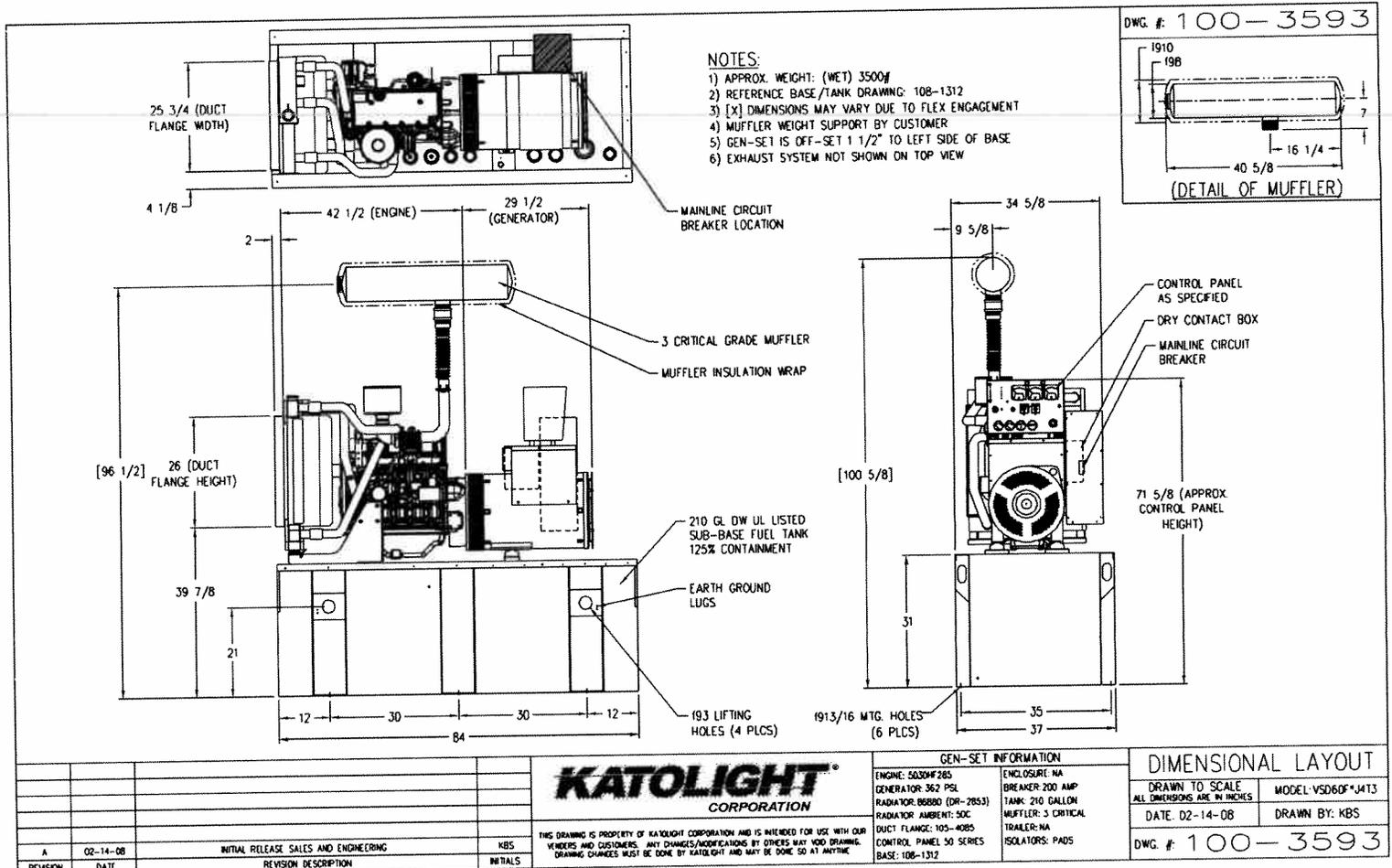
For attenuation: VSWR 1.0, ambient temperature 20°C (68°F).  
For Average Power, VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), no solar loading.



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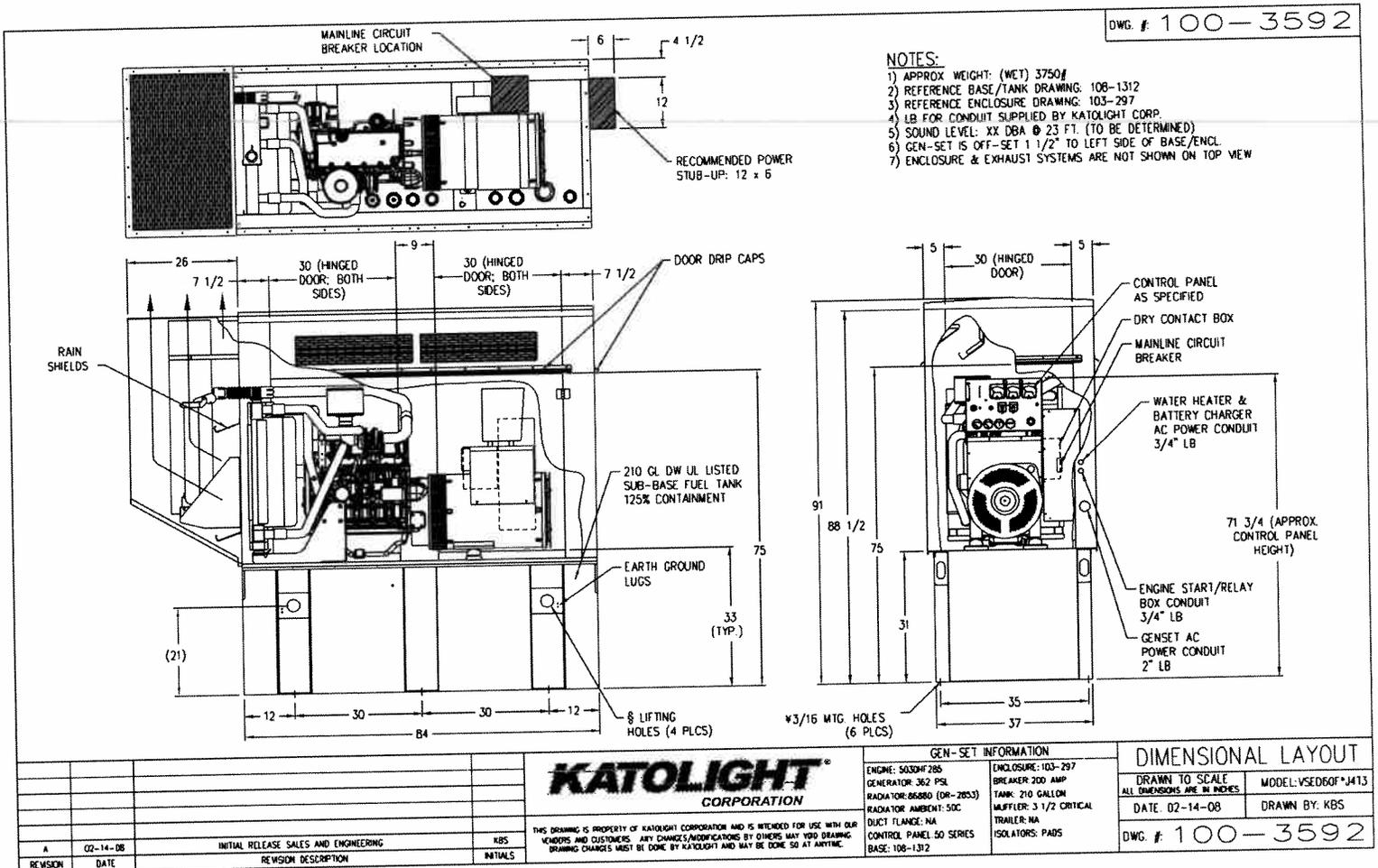
Customer Service Center - Call toll-free from: U.S.A., Canada and Mexico 1-800-255-1479

EXHIBIT B (pg. 10)



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EXHIBIT B (pg. 11)



**KATOLIGHT**  
CORPORATION

**GEN-SET INFORMATION**  
 ENGINE: 5032HF 286  
 GENERATOR: 362 PSL  
 RADIATOR: 66880 (DR-2853)  
 RADIATOR AMBENT: 50C  
 DUCT FLANGE: NA  
 CONTROL PANEL: 50 SERIES  
 BASE: 108-1312

**DIMENSIONAL LAYOUT**

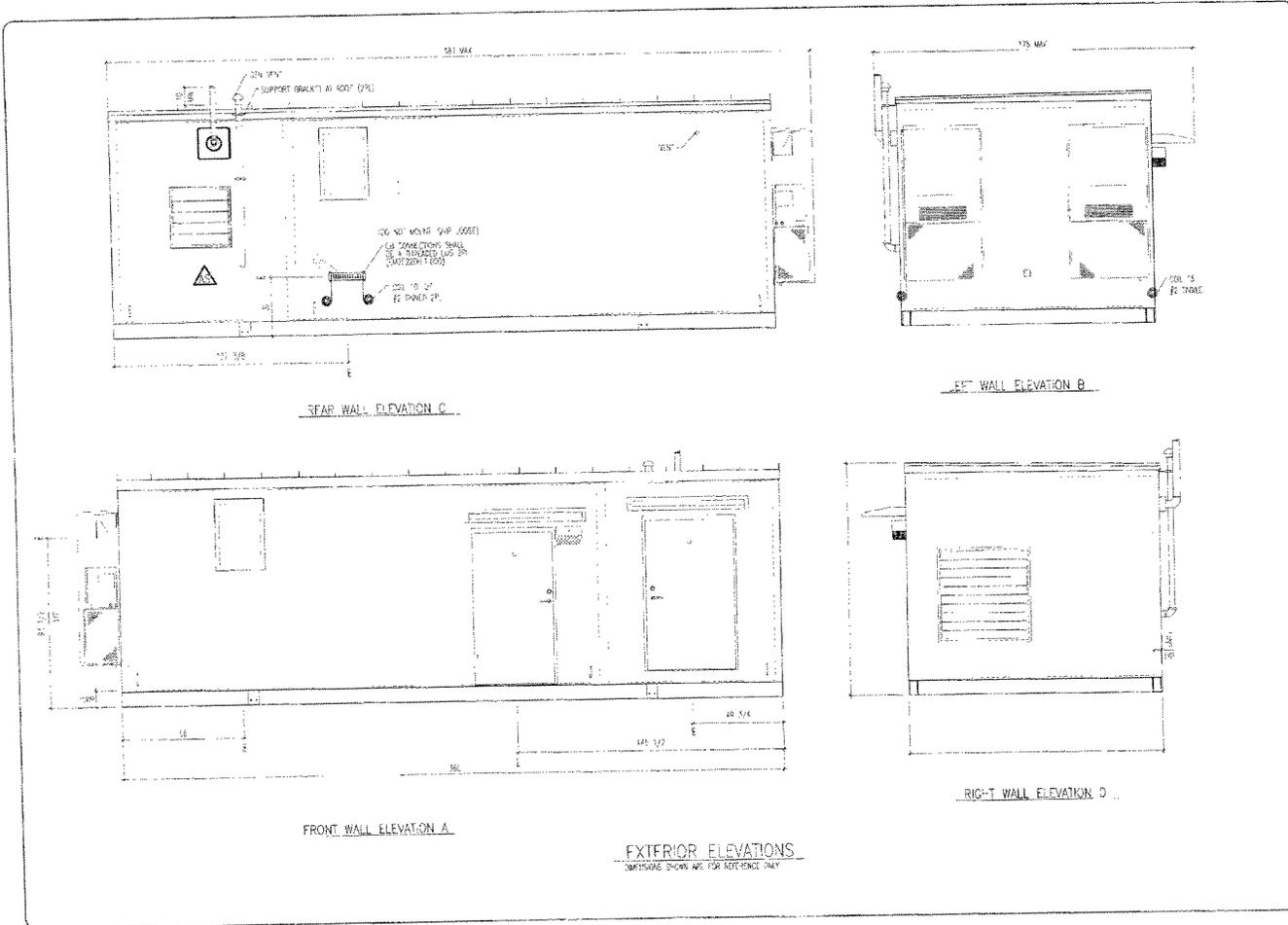
DRAWN TO SCALE  
 ALL DIMENSIONS ARE IN INCHES  
 DATE: 02-14-08  
 MODEL: VSED60F\*J413  
 DRAWN BY: KBS  
 DWG # 100-3592

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REVISION	DATE	REVISION DESCRIPTION	INITIALS
A	02-14-08	INITIAL RELEASE SALES AND ENGINEERING	KBS

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EXHIBIT B (pg. 12)



REVISIONS			
NO.	DATE	BY	APP.
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6	2/12/08	WAS	WLC
7	2/12/08	WAS	WLC
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9	2/12/08	WAS	WLC
10	2/12/08	WAS	WLC
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17	2/12/08	WAS	WLC
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19	2/12/08	WAS	WLC
20	2/12/08	WAS	WLC

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 3021 PINE CREEK RD NW #302  
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 VA # 023595 / MD #21955

**VFP, INC.**  
 CORPORATE OFFICE  
 2640 Electric Road Suite A-207  
 Suffolk, VA 24060-3044  
 (540)977-0500 (540)977-5550 fax

MANUFACTURING FACILITY  
 412 Industrial Park  
 Suffolk, Virginia 24064  
 (757)431-4000 (757)431-1156 fax  
 (540)977-0500 (540)977-5550 fax

NO.	DATE	BY	APP.
1	10/10/07	WAS	WLC
2	1/20/08	WAS	WLC
3	1/27/08	WAS	WLC
4	1/27/08	WAS	WLC
5	1/27/08	WAS	WLC
6	1/27/08	WAS	WLC
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20	1/27/08	WAS	WLC