

GROUND LEASE AGREEMENT

This Ground Lease Agreement (the "**Agreement**") is made and effective as of the date the last Party executes this Agreement (the "**Effective Date**"), by and between COUNTY OF SOLANO, a general law county of California having a place of operation at 675 Texas Street, Suite 2500, Fairfield, CA 94533 ("**Landlord**"), and DISH Wireless L.L.C., a Colorado limited liability company having a place of business at 9601 S. Meridian Blvd., Englewood, Colorado 80112 ("**Tenant**," and together with Landlord, the "**Parties**," each a "**Party**").

WITNESSETH:

1. Definitions.

"**Affiliate(s)**" means, with respect to a Party, any person or entity, directly or indirectly, controlling, controlled by, or under common control with such Party, in each case for so long as such control continues. For purposes of this definition, "control" shall mean (i) the ownership, directly or indirectly, or at least fifty percent (50%) of either: (a) the voting rights attached to issued voting shares; or (b) the power to elect fifty percent (50%) of the directors of such entity, or (ii) the ability to direct the actions of the entity. Notwithstanding the preceding, for purposes of this Agreement, EchoStar Corporation and its direct and indirect subsidiaries shall not be deemed to be "Affiliates" of Tenant unless after the Effective Date any such entity qualifies as a direct or indirect subsidiary of DISH Network Corporation.

"**Applicable Law**" means any applicable federal, state or local act, law, statute, ordinance, building code, rule, regulation or permit, or any order, judgment, consent or approval of any Governmental Authority having jurisdiction over the Parties or this Agreement.

"**Governmental Authority**" means any: (i) federal, state, county, municipal, tribal or other local government and any political subdivision thereof having jurisdiction over the Parties or this Agreement; (ii) any court or administrative tribunal exercising proper jurisdiction; or (iii) any other governmental, quasi-governmental, self-regulatory, judicial, public or statutory instrumentality, authority, body, agency, bureau or entity of competent jurisdiction.

"**Installation**" means the installation of Tenant's Communications Facility at the Premises.

"**Property**" means that certain parcel of real property more particularly described in Exhibit A.

"**Tenant's Communications Facility**" means Tenant's communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure, associated antennas, equipment shelters or cabinets and fencing, as well as any lines, wires, cables, circuits, conduits, poles, and associated equipment, improvements, fixtures and appurtenances for any utility or similar services, together with any other items, fixtures, improvements, and equipment that Tenant, in its sole and absolute discretion, deems beneficial and/or necessary to Tenant's Permitted Use of the Premises.

2. Premises, Term, Rent and Contingencies.

2.1 **Premises.** Landlord is the owner of the Property located at 1340 Virginia Street, Vallejo, CA 94590. Landlord leases to Tenant a portion of Landlord's Property consisting of an approximately 35 square foot parcel (the "**Lease Area**"), together with a non-exclusive right of way and easement for ingress and egress and for the installation of lines, wires, cables, circuits, conduits, poles, and associated equipment, improvements, fixtures and

appurtenances for utility and similar services, over, under and along a two foot (2') wide area extending from the nearest public right of way to the Lease Area (together with any additional easements or rights of way described hereinbelow, the "Easements"). The Lease Area and Easements are initially described in Exhibit B and are collectively referred to as the "Premises". Landlord also grants to Tenant: (a) the right to use any available electrical systems and/or fiber installed at the Property to support Tenant's Communications Facility; and (b) any easements on, over, under, and across the Property for utilities, fiber, and/or similar services and access to the Premises. Landlord agrees that providers of utilities, fiber, and/or similar services may use such Easements and/or available conduit(s) for the installation of any equipment necessary to provide utilities, fiber, and/or similar services to the Premises. If the existing utility or fiber sources located within the Premises or on the Property are insufficient for Tenant's Permitted Use or if Tenant or any utility company or third party provider of services is unable to use the Easements, then Landlord agrees to grant Tenant and/or the applicable utility company and/or third party service provider the right, at Tenant's sole cost and expense, to install such utility, fiber, and/or similar services on, over and/or under the Property as is necessary for Tenant's Permitted Use; provided that Landlord and Tenant shall mutually agree on the location of such installation(s).

2.2 Term. This Agreement shall be effective as of the Effective Date. The Initial term of this Agreement (the "Initial Term") will commence on the earlier of: (i) the first (1st) day of the month following the commencement of Tenant's Installation to be evidenced by correspondence from the Tenant including the building permit issue date, or (ii) one (1) year from the Effective Date (the "Commencement Date"), and will expire at 11:59 PM on the day immediately preceding the fifth (5th) anniversary of the Commencement Date unless terminated sooner, renewed or extended in accordance with this Agreement. The Initial Term shall automatically renew for up to four (4) additional terms of sixty (60) months each (each, a "Renewal Term" and together with the Initial Term, the "Term"). However, Tenant may, in Tenant's sole and absolute discretion, elect not to renew the lease at the end of the then-current Term by giving Landlord written Notice at least ninety (90) days prior to the end of the then-current Term. The Parties agree that, subject to the Contingencies, this Agreement constitutes a binding and valid obligation on each Party and that each Party has vested rights in this Agreement as of the Effective Date.

2.3 Rent. Beginning on the Commencement Date and continuing through the term of this Agreement, Tenant shall pay Landlord rent for the Premises ("Rent") in the amount of two thousand seven hundred fifty and 00/100 Dollars (\$2,750.00) per month. The first Rent payment shall be made within twenty (20) business days of the Commencement Date, with subsequent rent payable by the fifth day of each month. On each anniversary of the Commencement Date, the Rent shall be automatically increased by three percent (3 %) of the then-current Rent. Payments shall be delivered to the address designated by Landlord in Section 12.11, or by electronic payment. All payments for any fractional month shall be prorated based upon the number of days during such month that the payment obligation was in force ("Payment Terms"). Tenant shall require receipt of a validly completed IRS approved W-9 form (or its equivalent) prior to paying any Rent or any other amount(s) due under this Agreement.

2.4 Contingencies. The Parties acknowledge and agree that Tenant's ability to lawfully use the Premises is contingent upon Tenant obtaining all certificates, permits, approvals and other authorizations that may be required by any Governmental Authority in accordance with Applicable Law (collectively, the "Governmental Approvals"). Tenant will endeavor to obtain all such Governmental Approvals promptly. Landlord hereby authorizes Tenant, at Tenant's sole cost and expense, to file and submit for Governmental Approvals. Landlord shall: (a) cooperate with Tenant in Tenant's efforts to obtain such Governmental Approvals; (b) promptly execute and deliver all documents necessary to obtain and maintain the Government Approvals; and (c) not take any action that would adversely affect Tenant's ability to obtain and/or maintain the Governmental Approvals. If: (i) any application for Governmental Approvals is rejected, conditioned, materially delayed or otherwise not

approved for any or no reason; or (ii) Tenant determines, in Tenant's sole and absolute discretion, that such Governmental Approvals cannot be obtained in a timely and commercially reasonable manner (clauses (i) and (ii) collectively, the "**Contingencies**"), then, Tenant shall have the right in its sole and absolute discretion to terminate this Agreement immediately upon Notice to Landlord, without penalty or further obligation to Landlord (or Landlord's affiliates, employees, officers, agents or lenders). If, following the Commencement Date, and through no fault of Tenant, any Governmental Approval issued to Tenant is canceled, expires, lapses or is otherwise withdrawn or terminated by the applicable Governmental Authority, then Tenant shall have the right in its sole and absolute discretion to terminate this Agreement upon ninety (90) days' Notice to Landlord without penalty or further obligation to Landlord (or Landlord's affiliates, employees, officers, agents or lenders). If this Agreement is terminated, this Agreement shall be of no further force or effect (except as set forth to the contrary herein).

3. Use, Access and Modifications to Tenant's Communications Facility.

3.1 **Tenant's Permitted Use.** Landlord agrees that Tenant may use the Premises for the purpose of the installation, operation, maintenance and management of Tenant's Communications Facility (including, without limitation, the right to transmit and receive radio frequency and other communications signals), which shall include the right to replace, repair, add, or otherwise modify any or all of Tenant's Communications Facility and the frequencies over which Tenant's equipment operates ("**Tenant's Permitted Use**"). Landlord acknowledges and agrees that if radio frequency signage and/or barricades are required by Applicable Law, Tenant shall have the right to install the same on the Property.

3.2 **Access.** Commencing on the Effective Date and continuing throughout the Term, Tenant, its employees, agents and contractors shall have unrestricted access to the Premises 24 hours per day, 7 days per week and at no additional cost or expense to Tenant. Further, Landlord grants to Tenant the right of ingress and egress to the Premises.

3.3 **Modifications to Tenant's Communications Facility.** Tenant's initial installation of Tenant's Communications Facility, as well as any subsequent additions, repairs, replacements, upgrades or other modifications to and the frequencies and technologies utilized in connection therewith, shall be at the sole and absolute discretion and option of Tenant. Landlord recognizes that Tenant may install an HVAC unit within facility upon Landlord's review and approval of construction plans. Tenant will maintain and replace unit as necessary. Upon lease termination, unit to remain at facility. If any addition, replacement, upgrade, or other modification to Tenant's Communications Facility necessitates long-term or permanent expansion of Tenant's exclusive Lease Area, then Tenant shall first obtain Landlord's approval to expand the Lease Area, such approval not to be unreasonably withheld, conditioned, or delayed. At Tenant's request, Landlord agrees to enter into an amendment to this Agreement documenting any approved expansion of Tenant's Lease Area, as well as a recordable memorandum.

4. Utilities, Liens and Taxes.

4.1 **Utilities.** Tenant shall take over existing meter previously used by a former tenant (Pagenet) and shall request a billing transfer from PG&E. In the alternative, Tenant shall have its own utility meter installed in a mutually agreed upon location. Tenant may use and make reasonable modifications to the Premises' electrical system to accommodate the electrical requirements of Tenant's Equipment at Tenant's sole cost and expense.

4.2 **Liens.** Tenant will use commercially reasonable efforts to prevent any lien from attaching to the Property or any part thereof. If any lien is filed purporting to be for labor or material furnished or to be furnished at the request of Tenant, then Tenant shall do all acts necessary to discharge such lien by payment, satisfaction or posting of bond within ninety (90) days of receipt of Notice of the same from Landlord; provided, that Tenant may

contest any such lien if Tenant provides Landlord with cash or a letter of credit in the amount of said lien as security for its payment within such ninety (90) day period, and thereafter diligently contests such lien. In the event Tenant fails to deposit the aforementioned security with Landlord and fails to pay any lien claim after entry of final judgment in favor of the claimant, then Landlord shall have the right to expend all sums reasonably necessary to discharge the lien claim.

4.3 Taxes. Landlord shall pay all taxes that accrue against the Property during the Term. If any such tax or excise is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the taxing authority. Tenant shall be liable for all taxes against Tenant's personal property or Tenant's fixtures placed in the Premises, whether levied or assessed against Landlord or Tenant. Landlord shall reasonably cooperate with Tenant, at Tenant's expense, in any appeal or challenge to Taxes. If, as a result of any appeal or challenge by Tenant, there is a reduction, credit or repayment received by Landlord for any Taxes previously paid by Tenant, Landlord agrees to promptly reimburse to Tenant the amount of said reduction, credit or repayment. If Tenant does not have the standing rights to pursue a good faith and reasonable dispute of any Taxes under this section, Landlord will pursue such dispute at Tenant's sole cost and expense upon written request of Tenant.

5. Interference.

Tenant agrees to use commercially reasonable efforts to ensure that Tenant's Communications Facility does not cause measurable Interference (as defined below) with any equipment installed at the Property as of the Effective Date. Following the Effective Date, Landlord agrees not to install or to permit others to install any structure or equipment which could block or otherwise interfere with any transmission or reception by Tenant's Communications Facility ("**Interference**"). If Interference continues for a period more than forty-eight (48) hours following a Party's receipt of notification thereof, Landlord shall cause any interfering party to cease operating, and/or relocate, the source of Interference, or to reduce the power sufficiently to minimize the Interference until such Interference can be remedied.

6. Maintenance and Repair Obligations.

6.1 Landlord Maintenance of Property. Landlord represents and warrants that, as of the Effective Date, the Property is in compliance with Applicable Law. Throughout the term of this Agreement, Landlord shall maintain, at its sole cost and expense, the Property (excluding the Premises) in good operating condition and in compliance with all Applicable Laws. Landlord shall not have any obligation to maintain, repair or replace Tenant's Communications Facility except to the extent required due to the acts and/or omissions of Landlord, Landlord's agents, contractors or other tenants of the Property. Landlord agrees to safeguard Tenant's Communications Facility with the same standard of care it uses to protect its own property, but in no event less than reasonable care. In addition, Tenant may take all actions necessary, in Tenant's reasonable discretion, to secure and/or restrict access to Tenant's Communications Facility.

6.2 Tenant Maintenance of Tenant's Communications Facility. Tenant assumes sole responsibility for the maintenance, repair and/or replacement of Tenant's Communications Facility, except as set forth in Section 6.1. Tenant agrees to perform all maintenance, repair or replacement of Tenant's Communications Facility ("**Tenant Maintenance**") in accordance with Applicable Law, and in a good and workmanlike manner. Tenant shall not be permitted to conduct Tenant Maintenance in a manner that would materially increase the size of the Premises.

7. Surrender and Hold Over.

7.1 Surrender. Except as set forth to the contrary herein, within ninety (90) days following the expiration or termination of this Agreement (the "Removal Period"), in accordance with the terms of this Agreement, Tenant will remove Tenant's Communications Facility (excluding footings, pads conduits, pipes, fixtures and improvements to the extent any of the foregoing are installed underground and/or below grade) and surrender the Premises to Landlord in a condition similar to that which existed immediately prior to Tenant's Installation together with any additions alteration and improvements to the Premises, in either case, normal wear and tear excepted. The Parties acknowledge and agree that Rent will not accrue during the Removal Period. However, if Tenant's Communications Facility is not removed during the Removal Period, Tenant will be deemed to be in Hold Over (as defined in Section 7.2 below) until Tenant's Communications Facility is removed from the Premises. Tenant shall have the right to access the Premises or remove any or all of Tenant's Communications Facility from the Premises at any time during the Term or the Removal Period.

7.2 Hold Over. If Tenant occupies the Premises beyond the Removal Period without Landlord's written consent ("Hold Over"), Tenant will be deemed to occupy the Premises on a month-to-month basis, terminable by either Party on thirty (30) days' written Notice to the other Party. All of the terms and provisions of this Agreement shall be applicable during that period, except that Tenant shall pay Landlord a rental fee equal to the then current monthly Rent applicable at the expiration or termination of the Agreement, prorated for the number of days of such hold over.

8. Default, Remedies and Termination.

8.1 Default. If any of the following events occur during the Term (each a "Default"), then the non-Defaulting Party may elect one or more of the remedies set forth below in this Section 8 or seek any other remedy available: (a) Tenant's failure to make any payment required by this Agreement within thirty (30) days after receipt of written Notice from the Landlord of such failure to pay; (b) failure by either Party to observe or perform any provision of this Agreement where such failure: (1) continues for a period of thirty (30) days after written Notice thereof from the non-Defaulting Party and the Defaulting Party has failed to cure or commenced the cure of such Default; and/or (2) based upon Tenant's reasonable determination, materially affects Tenant's ability to transmit or receive wireless communications signals to or from the Premises; (c) either Party files a petition in bankruptcy or insolvency or for reorganization or arrangement under the bankruptcy laws or under any insolvency act of any state, or admits the material allegations of any such petition by answer or otherwise, or is dissolved or makes an assignment for the benefit of creditors; and/or (d) involuntary proceedings under any such bankruptcy law or insolvency act or for the dissolution of either Party are instituted against either Party, or a receiver or trustee is appointed for all or substantially all of the property of either Party, and such proceeding is not dismissed, or such receivership or trusteeship vacated within sixty (60) days after such institution or appointment.

8.2 Remedies. Upon the occurrence of any uncured Default, the non-Defaulting Party may thereafter terminate this Agreement immediately upon written Notice to the other Party without prejudice to any other remedies the non-Defaulting Party may have at law or in equity.

8.3 Termination. Tenant shall have the right to terminate this Agreement without further liability upon thirty (30) days prior written Notice to Landlord due to any one or more of the following: (i) changes in Applicable Law which prohibit or adversely affect Tenant's ability to operate Tenant's Communications Facility at the Premises; or (ii) Landlord or a third party installs any structure, equipment, or other item which blocks, hinders, limits, or prevents Tenant from being able to use the Tenant Communications Facility for Tenant's Permitted Use.

9. Limitation of Liability and Indemnification.

9.1 Limitation of Liability. EXCEPT FOR EACH PARTY'S INDEMNIFICATION OBLIGATIONS SET FORTH BELOW IN THIS SECTION 9, NEITHER PARTY NOR ANY OF ITS AGENTS, CONTRACTORS OR EMPLOYEES, SHALL BE LIABLE TO THE OTHER PARTY OR ANY PERSON CLAIMING THROUGH THAT PARTY FOR ANY EXEMPLARY, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CLAIMS CAUSED BY OR RESULTING FROM THE NEGLIGENCE, OF THAT PARTY, ITS AGENTS, CONTRACTORS OR EMPLOYEES.

9.2 Tenant's Indemnity. Except to the extent caused by the breach of this Agreement by Landlord or the acts or omissions of Landlord, its officers, agents, employees, contractors, or any other person or entity for whom Landlord is legally responsible, Tenant shall defend, indemnify and hold Landlord and its officers, directors, shareholders, employees, agents and representatives ("**Landlord's Representatives**") harmless from and against any and all claims, demands, litigation, settlements, judgments, damages, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees) (individually or collectively, a "**Claim**") arising directly or indirectly out of: (i) any act or omission of Tenant, its officers, agents, employees, contractors, or any other person or entity for whom Tenant is legally responsible ("**Tenant's Representatives**"); or (ii) a breach of any representation, warranty or covenant of Tenant contained or incorporated in this Agreement. Tenant's obligations under this Section 9.2 shall survive the expiration or earlier termination of this Agreement for two (2) years.

9.3 Landlord's Indemnity. Except to the extent caused by the breach of this Agreement by Tenant or the acts or omissions of Tenant or Tenant's Representatives, Landlord shall defend, indemnify and hold Tenant, its officers, directors, shareholders, employees, agents and representatives harmless from and against any and all Claims arising directly or indirectly out of: (i) any act or omission of Landlord, its officers, agents, employees, contractors or any other person or entity for whom Landlord is legally responsible; (ii) a breach of any representation, warranty or covenant of Landlord contained or incorporated in this Agreement; and/or (iii) the generation, possession, use, storage, presence, release, spill, treatment, transportation, manufacture, refinement, handling, production and/or disposal of Hazardous Substances in, on, about, adjacent to, under or near the Premises and/or the Property, and/or any contamination of the Premises and/or the Property by any Hazardous Substance, but only to the extent not caused by Tenant or Tenant's Representatives. Landlord's obligations under this Section 9.3 shall survive the expiration or earlier termination of this Agreement for two (2) years.

9.4 Indemnification Procedure. The Party seeking indemnification (the "**Indemnified Party**") shall promptly send Notice to the Party from whom indemnification is being sought (the "**Indemnifying Party**") of the claim or suit for which indemnification is sought. The Indemnified Party shall not make any admission as to liability or agree to any settlement of or compromise any claim without the prior written consent of the Indemnifying Party. The Indemnified Party shall, at the Indemnifying Party request and expense, give the Indemnifying Party all reasonable assistance in connection with those negotiations and litigation.

10. Insurance.

10.1 Landlord Obligations. Throughout the Term, Landlord shall maintain, at Landlord's sole cost and expense, the following insurance coverage Commercial General Liability of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate. All such policies shall be endorsed to include Tenant as an additional insured. Subject to the policy minimums set forth above in this Section 10.1, the insurance required of Landlord hereunder may be maintained by a blanket or master policy that includes properties other than the Property.

10.2 Tenant Obligations. Throughout the Term, Tenant shall maintain, at Tenant's sole cost and expense, the following insurance coverage: (i) workers' compensation insurance with no less than the minimum

limits required by Applicable Law; (ii) employer's liability insurance with such limits as required by Applicable Law; and (iii) Commercial General Liability with a minimum limit of \$1,000,000 per occurrence and \$2,000,000 aggregate. All such policies shall be endorsed to include Landlord as additional insured.

10.3 Insurance Requirements. All policies required by this Section 10 shall be issued by insurers that are (1) licensed to do business in the state in which the Property are located, and (2) rated A- or better by Best's Key Rating Guide.

10.4 Waiver of Subrogation. To the fullest extent permitted by law, Landlord and Tenant for themselves and any and all parties claiming under or through them, including, without limitation, their respective insurers, hereby mutually release and discharge each other and the other's Affiliates, and their respective officers, directors, shareholders, agents, employees, contractors, and/or any other person or entity for whom a Party is legally responsible from any claims for damage to any person or to the Premises or any other real or personal property that are or are claimed to have been caused by or result from risks insured against under any insurance policies carried by the waiving party and in force at the time of such damage and hereby waive any right of subrogation that might otherwise exist in or accrue to any person on account thereof. All policies required to be carried by either Party herein shall contain an endorsement in favor of the other Party waiving the insurance company's right of subrogation against such other Party. THIS RELEASE SHALL APPLY EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE FAULT OR NEGLIGENCE OF A PARTY HERETO OR BY ANY PERSON FOR WHICH SUCH PARTY IS RESPONSIBLE. EACH PARTY AGREES TO NOTIFY ITS INSURANCE CARRIER(S) OF THIS PROVISION.

11. Representations and Warranties.

11.1 Representations and Warranties. Landlord represents, warrants and covenants that: (a) Landlord has the right and authority to execute and perform this Agreement; (b) there are no liens, judgments or other title matters materially and adversely affecting Landlord's title to the Property; (c) there are no covenants, easements or restrictions that prevent the use of the Premises for Tenant's Permitted Use; (d) the Premises are in good repair and suitable for Tenant's Permitted Use; (e) Landlord will comply with all federal, state, and local laws in connection with any substances brought on to the Property that are identified as toxic or hazardous by any Applicable Law, ordinance or regulation ("Hazardous Substance"); and (f) Tenant's use and quiet enjoyment of the Premises shall not be disturbed. Landlord is responsible for any loss or damage, including remediation, with respect to Hazardous Substances as per Applicable Law. Landlord understands and agrees that notwithstanding anything contained in this Agreement to the contrary, in no event shall Tenant have any liability whatsoever with respect to any Hazardous Substance that was on, about, adjacent to, under or near the Property prior to the Effective Date, or that was generated, possessed, used, stored, released, spilled, treated, transported, manufactured, refined, handled, produced or disposed of on, about, adjacent to, under or near the Property by: (1) Landlord, its agents, employees, contractors or invitees; or (2) any third party who is not an employee, agent, contractor or invitee of Tenant.

12. Miscellaneous.

12.1 Assignment and Subletting. Tenant has the right to sublease the Premises or assign or otherwise transfer any of its rights or obligations under this Agreement, in whole or in part, with the approval of Landlord, which shall not be unreasonably withheld, conditioned, or delayed. Upon notification and approval from Landlord of an assignment or transfer of this Agreement, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment. Notwithstanding the foregoing, any assignment or transfer of any rights or obligations under this Agreement, in whole or in part, to an affiliate of Tenant shall not be considered an assignment requiring consent under this Section 12.1. .

12.2 Rights Upon Sale of Property. Should Landlord, at any time during the Term, sell or transfer all or any part of the Property to a purchaser other than Tenant, such transfer shall be subject to this Agreement and Landlord shall require any such purchaser or transferee to recognize Tenant's rights under the terms of this Agreement in a written instrument signed by Landlord and the third party transferee. If Landlord completes any such transfer without executing such a written instrument, then Landlord shall not be released from its obligations to Tenant under this Agreement, and Tenant shall have the right to look to Landlord and the third party for the full performance of this Agreement. In addition to, and not in limitation of the preceding, in the event the Landlord sells or transfers either its rights in all or any portion of the Premises or Landlord's right to the receive the Rent (and other payments) derived from the Premises under this Agreement, in either case separate from the underlying Property, to any third party who is not an Affiliate of Landlord, then prior to any such sale or transfer Landlord shall first provide Tenant with a right of first refusal ("ROFR") to acquire such right(s). In order to evaluate the terms and conditions offered to Landlord by such third party Landlord shall provide Tenant with a full, complete and unredacted copy thereof and Tenant shall have thirty (30) days from receipt thereof to elect to exercise its ROFR; provided that Tenant's exercise of the ROFR shall be on the same terms and conditions as offered to Landlord by such third party (except as may be mutually agreed upon to the contrary).

12.3 Subordination and Non-Disturbance. This Agreement shall be subordinate to any mortgage, deed of trust, or other security agreement (each a "Mortgage") by Landlord which, from time to time, may encumber all or part of the Property; provided, however, the lender under every such Mortgage shall, in the event of a foreclosure of Landlord's interest, recognize the validity of this Agreement and Tenant's right to remain in occupancy of and have access to the Premises, as long as no Default by Tenant exists under this Agreement. If the Property is encumbered by a Mortgage, then Landlord shall, promptly following Tenant's request, obtain and furnish to Tenant a non-disturbance agreement, in recordable form, for each such Mortgage.

12.4 Condemnation. If all or any portion of the Premises is condemned, taken by a Governmental Authority or otherwise appropriated by the exercise of the right of eminent domain or a deed or conveyance in lieu of eminent domain (each, a "Taking"), either Party hereto shall have the right to terminate this Agreement immediately upon Notice to the other Party. If either Party elects to terminate this Agreement, the Rent set forth herein shall be abated, and Tenant's liability therefor will cease as of the date of such Taking, this Agreement shall terminate as of such date, and any prepaid rent shall be returned to Tenant. If this Agreement is not terminated as herein provided, then it shall continue in full force and effect, and Landlord shall, within a reasonable time after possession is physically taken by the condemning authority restore the remaining portion of the Premises to render it reasonably suitable for the uses permitted by this Agreement and the Rent shall be proportionately and equitably reduced. Notwithstanding the foregoing, Landlord shall not be obligated to expend an amount greater than the proceeds received from the condemning authority less all expenses reasonably incurred in connection therewith (including attorneys' fees) for the restoration. All compensation awarded in connection with a Taking shall be the property of Landlord, provided that if allowed under Applicable Law, Tenant may apply for and keep as its property a separate award for (i) the value of Tenant's leasehold interest; (ii) the value of Tenant's Communications Facility or other personal property of Tenant; (iii) Tenant's relocation expenses; and (iv) damages to Tenant's business incurred as a result of such Taking.

12.5 Recording. If requested by Tenant, Landlord and Tenant agree to execute a Memorandum of Lease that Tenant may record at Tenant's sole cost and expense. The date set forth in the Memorandum of Lease is for recording purposes only, and bears no reference to commencement of the Term or rent payments of any kind.

12.6 Force Majeure. Notwithstanding anything to the contrary in this Agreement, neither Party shall be liable to the other Party for nonperformance or delay in performance of any of its obligations under this Agreement due to causes beyond its reasonable control, including, without limitation, strikes, lockouts,

pandemics, labor troubles, acts of God, accidents, technical failure governmental restrictions, insurrections, riots, enemy act, war, civil commotion, fire, explosion, flood, windstorm, earthquake, natural disaster or other casualty ("Force Majeure"). Upon the occurrence of a Force Majeure condition, the affected Party shall immediately notify the other Party with as much detail as possible and shall promptly inform the other Party of any further developments. Immediately after the Force Majeure event is removed or abates, the affected Party shall perform such obligations with all due speed. Neither Party shall be deemed in default of this Agreement to the extent that a delay or other breach is due to or related to a Force Majeure event. A proportion of the Rent herein reserved, according to the extent that such Force Majeure event shall interfere with the full enjoyment and use of the Premises, shall be suspended and abated from the date of commencement of such Force Majeure event until the date that such Force Majeure event subsides. If such Force Majeure event prevents the affected Party from performing its obligations under this Agreement, in whole or in part, for a period of forty-five (45) or more days, then the other Party may terminate this Agreement immediately upon Notice to the affected Party.

12.7 Successors and Assigns. The respective rights and obligations provided in this Agreement shall bind and shall continue to apply for the benefit of the Parties hereto, their legal representative, heirs, successors and permitted assigns. The rights granted to Tenant herein shall extend to any subtenant's of Tenant without necessity in each instance of expressly stating so.

12.8 Governing Law and Construction. This Agreement shall be construed, governed and enforced in accordance with the laws of the state in which the Premises is located. The section and paragraph headings contained in this Agreement are solely for reference purposes, and shall not affect in any way the meaning or interpretation of this Agreement.

12.9 Severability. Each provision of this Agreement shall be construed as separable and divisible from every other provision and the enforceability of any one provision shall not limit the enforceability, in whole or in part, of any other provision. If a court or administrative body of competent jurisdiction holds any provision of this Agreement to be invalid, illegal, void or less than fully enforceable as to time, scope or otherwise, such provision shall be construed by limiting and reducing it so that such provision is valid, legal and fully enforceable while preserving to the greatest extent permissible the original intent of the parties; the remaining terms and conditions of this Agreement shall not be affected by such alteration, and shall remain in full force and effect.

12.10 Waiver; Remedies. It is agreed that, except as expressly set forth in this Agreement, the rights and remedies herein provided in case of Default or breach by either Landlord or Tenant are cumulative and shall not affect in any manner any other remedies that the non-breaching Party may have by reason of such default or breach. The exercise of any right or remedy herein provided shall be without prejudice to the right to exercise any other right or remedy provided herein, at law, in equity or otherwise. In addition to, and not in limitation of, the preceding, the Parties acknowledge and agree that there will not be an adequate remedy at law for noncompliance with the provisions of Section 5, and therefore either Party shall have the right to equitable remedies, including, without limitation, injunctive relief and specific performance.

12.11 Notice. All notices or requests that are required or permitted to be given pursuant to this Agreement must be given in writing by certified US mail (postage pre-paid) with return receipt requested or by courier service (charges prepaid), or solely in the case of notice to Landlord by email, to the party to be notified, addressed to such party at the address(es) or email address(es) set forth below, or such other address(es), email address(es) or fax number(s) as such Party may have substituted by written notice (given in accordance with this Section 12.11) to the other Party ("Notice"). The sending of such Notice to the proper email address (in the case of email transmission) or the receipt of such Notice (in the case of delivery by first-class certified mail or by courier service) will constitute the giving thereof.

If to be given to Landlord:

County of Solano
Attn: Dale Eyeler

If by courier service:

675 Texas Street, Suite 2500
Fairfield, CA 94533

If by first-class certified mail:

675 Texas Street, Suite 2500
Fairfield, CA 94533

If by email:

Email address: dleyeler@solanocounty.com

If to be given to Tenant:

DISH Wireless L.L.C.
Attn: Lease Administration, Site ID
SFSFO00369B; landlordrelations@dish.com
5701 South Santa Fe Drive
Littleton, Colorado 80120

For general contact purposes:

llrelations@dish.com;
landlordrelations@dish.com

12.12 Entire Agreement. This Agreement sets forth the entire, final and complete understanding between the Parties hereto regarding the subject matter of this Agreement, and it supersedes and replaces all previous understandings or agreements, written, oral, or implied, regarding the subject matter of this Agreement made or existing before the date of this Agreement. Except as expressly provided by this Agreement, no waiver or modification of any of the terms or conditions of this Agreement shall be effective unless in writing and signed by both Parties. Any provision of this Agreement that logically would be expected to survive termination or expiration, shall survive for a reasonable time period under the circumstances, whether or not specifically provided in this Agreement.

12.13 Compliance with Law. Each Party shall, with respect to its actions and/or inactions pursuant to and in connection with this Agreement, comply with all applicable statutes, laws, rules, ordinances, codes and governmental or quasi-governmental orders or regulations (in each case, whether federal, state, local or otherwise) and all amendments thereto, now enacted or hereafter promulgated and in force during the term of this Agreement, a Renewal Term or any extension of either of the foregoing.

12.14 Counterparts. This Agreement may be executed in any number of identical counterparts and, if so executed, shall constitute one agreement, binding on all the Parties hereto, notwithstanding that all the Parties are not signatories to the original or the same counterpart. Execution of this Agreement by facsimile or electronic signature shall be effective to create a binding agreement and, if requested, Landlord and Tenant agree to exchange original signed counterparts in their possession.

12.16 Incorporation of Exhibits. All exhibits referenced herein and attached hereto are hereby incorporated herein in their entirety by this reference.

[Remainder of page intentionally left blank. Signature page follows.]

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

LANDLORD:

COUNTY OF SOLANO

By: _____

Name: _____

Its: _____

Date: _____

TENANT:

DISH WIRELESS L.L.C.

By: Satish Sharma

Name: Satish Sharma

Executive VP

Its: DISH Wireless

Date: 2-7-2025

APPROVED AS TO FORM

Office of County Counsel

By: M. Lallam, Deputy

Date: March 26, 2025

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

All that real property situate in the City of Vallejo, County of Solano, State of California, and particularly described as follows, to-wit:

Beginning in the extension easterly of the north line of Virginia Street, as said street is shown on that certain map entitled "Subdivision of Ten Acre Lot No. 56, City of Vallejo, County of Solano, California", which map was filed in the office of the County Recorder of said County and State January 15, 1905, and recorded in Book 1 of Maps, page 50, at a point which is South 88° 56' East, 626.82 feet along said north line extended from the southeast corner of Block 311-B as shown on said Map, thence North 1° 04' East, 75 feet; thence South 89° 30' East, 100 feet to a point in the West line of Tuolumne Street; thence South 0° 29' East, 65.99 feet, more or less, along said west line to a point in said extension of the north line of Virginia Street; thence North 88° 56' West, 100.76 feet, more or less, to the point of beginning.

PARCEL ID: 0057-140-010

EXHIBIT B

SURVEY AND/OR SITE PLAN

See attached drawings.

NOTE: Tenant may be referred to in the attached as "DISH Wireless".

NOTE ALSO: Certain right of way grants of easements for access and utilities as provided in the Agreement may or may not be described or depicted in the attached drawings.



DISH Wireless L.L.C. SITE ID:
SFSFO00369B

DISH Wireless L.L.C. SITE ADDRESS:
**1340 VIRGINIA ST
VALLEJO, CA 94590**

CALIFORNIA CODE OF 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. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

CODE TYPE	CODE
BUILDING	2022 CALIFORNIA BUILDING CODE (CBC)/2021 IBC
MECHANICAL	2022 CALIFORNIA MECHANICAL CODE (CMC)/2021 UMC
ELECTRICAL	2022 CALIFORNIA ELECTRICAL CODE (CEC)/2020 NEC

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL AND ENLARGED SITE PLAN
A-1.1	ANTENNA PLAN, RRU PLAN AND SCHEDULE
A-2	EXISTING AND PROPOSED NORTH ELEVATION
A-2.1	EXISTING AND PROPOSED SOUTH ELEVATION
A-3	PROPOSED EQUIPMENT PLAN AND ELEVATION
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
F-1	FIBER ROUTE PLAN AND DETAILS
M-0	MECHANICAL SCHEDULES & GENERAL NOTES
M-1	MECHANICAL PLAN ELEVATION
E-1	ELECTRICAL ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALC & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES
GN-5	RF SIGNAGE

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIPMENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- TOWER SCOPE OF WORK:
- INSTALL (2) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
 - INSTALL (2) PROPOSED SECTOR FRAMES
 - INSTALL PROPOSED JUMPERS
 - INSTALL (6) PROPOSED RRU's (2 PER SECTOR)
 - INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
 - INSTALL (1) PROPOSED HYBRID CABLE

- GROUND SCOPE OF WORK:
- INSTALL (1) PROPOSED EQUIPMENT R/F RACK
 - INSTALL (1) PROPOSED POWER CONDUIT
 - INSTALL (1) PROPOSED TELCO CONDUIT
 - INSTALL (1) PROPOSED TELCO-FIBER BOX
 - INSTALL (1) PROPOSED GPS UNIT
 - INSTALL (1) PROPOSED FIBER MID (IF REQUIRED)
 - INSTALL (1) PROPOSED ICE BRIDGE
 - INSTALL (1) PROPOSED CABLE TRAY

- MECHANICAL SCOPE OF WORK:
- INSTALLATION OF NEW DUCTLESS MIN-SPLIT UNIT AND ALL ASSOCIATED PIPING FOR COOLING NEW EQUIPMENT
 - INSTALLATION OF NEW WALKIE FAN CIRCULATION

SITE PHOTO



UNDERGROUND SERVICE ALERT
UTILITY NOTIFICATION: CENTER OF CALIFORNIA
(800) 542-2444
WWW.CALIFORNIA811.ORG
CALL 2-1-1 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION



GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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

SITE INFORMATION

PROPERTY OWNER: VERTICAL BRIDGE REIT, LLC
ADDRESS: 750 PARK OF COMMERCE DR.
SUITE 200
BOCA RATON, FL 33487
TOWER TYPE: TOWER
TOWER CO SITE ID: US-CA-5185
TOWER APP NUMBER: US-CA-5185
COUNTY: SOLANO
LATITUDE (NAD 83): 38.102352
LONGITUDE (NAD 83): -122.240816
ZONING JURISDICTION: SOLANO COUNTY
ZONING DISTRICT: PUBLIC AND SEM-PUBLIC
PARCEL NUMBER: 0007140010
OCCUPANCY GROUP: U
CONSTRUCTION TYPE: E-B
POWER COMPANY: PG&E
TELEPHONE COMPANY: AT&T (LIT)

PROJECT DIRECTORY

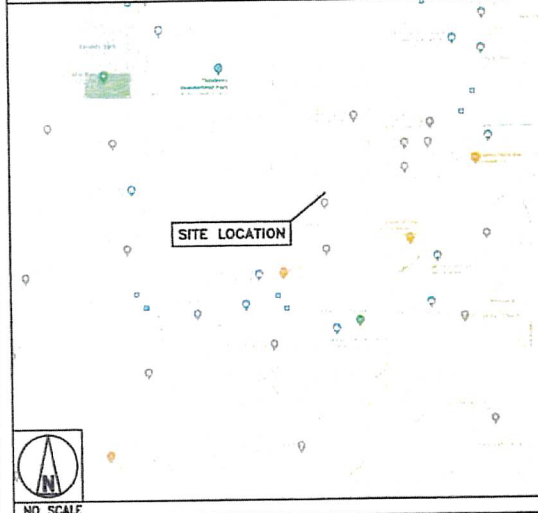
APPLICANT: DISH Wireless L.L.C.
8701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120
SITE DESIGNER: THE CBR GROUP
2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
SITE ACQUISITION: PAUL MADDOCK
paulm@thebrgroup.com
CONSTRUCTION MANAGER: CURTIS GARDNER
curtis.gardner@dish.com

DIRECTIONS

DIRECTIONS FROM SAN FRANCISCO INTERNATIONAL AIRPORT:

- GET ON US-101 N IN SOUTH SAN FRANCISCO
- TAKE I-80 E TO MILLER AVE/STEFFAN ST IN VALLEJO. TAKE EXIT 300 FROM I-80 E
- TAKE GEORGIA ST AND TULLAHME ST TO YOUR DESTINATION

VICINITY MAP



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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DRAWN BY: CHECKED BY: APPROVED BY:

NK

RFD REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
A	05/15/2023	REV CTS' SEND FOR REVIEW
B	07/17/2023	100% CONSTRUCTION SUBMITTER
C	07/18/2024	CONSTRUCTION DESIGN CHANGE
D	05/06/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER
SFSFO00369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSFO00369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

THE CBR GROUP
2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
www.TheCBRGroup.com



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DRAWN BY: CHECKED BY: APPROVED BY:

NK 04/05/2023

RFDS REV #: 3

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	04/12/2023	ISSUE SET FOR REVIEW
B	07/17/2023	ISSUE SET FOR REVIEW
C	08/17/2023	CONSTRUCTION ERROR CHANGE
D	08/18/2023	PLAN CHECK COMMENTS

AKC PROJECT NUMBER

SFSF000369B

DISH Wireless LLC
PROJECT INFORMATION

SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
OVERALL AND ENLARGED
SITE PLAN

SHEET NUMBER

A-1

CONTRA COSTA ST

EXISTING 12" WIDE
CHAIN-LINK GATE

SEE ENLARGED
SITE PLAN

EXISTING BUILDING (TYP)

VIRGINIA ST

ENLARGED SITE PLAN

12' 8' 4' 0' 16' 20'
3/32"=1'-0"

2

OVERALL SITE PLAN

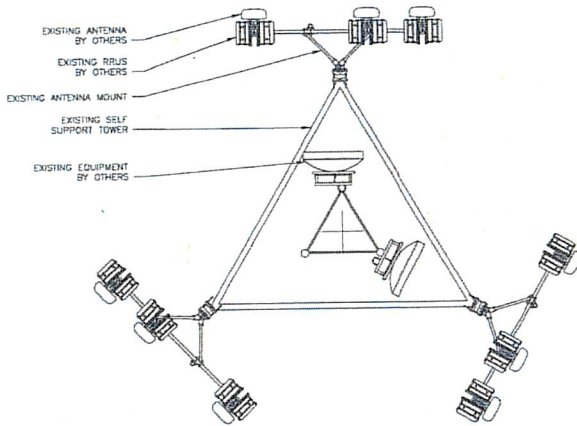
32' 24'16" 8' 0' 32' 64'
1/32"=1'-0"

1

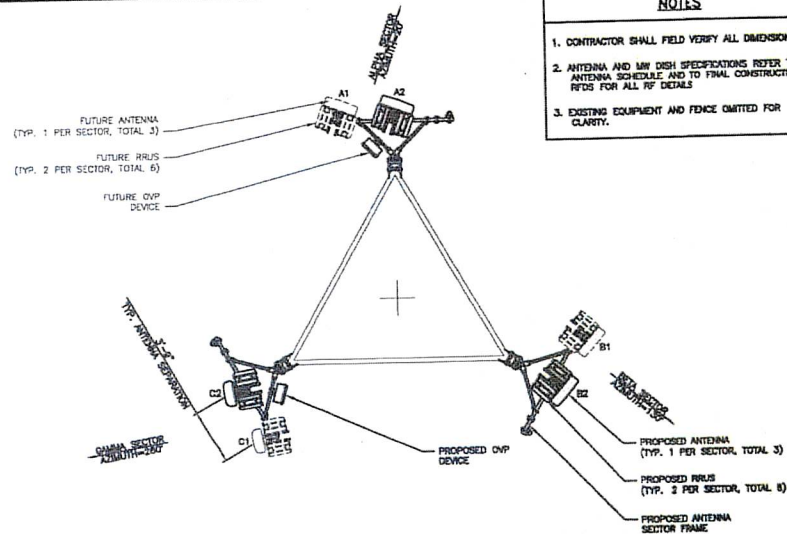
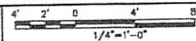
NOT USED

NO SCALE

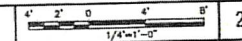
3



EXISTING ANTENNA AND RRUS PLAN @ 88' AGL (TO REMAIN)



PROPOSED ANTENNA AND RRUS PLAN @ 100' AGL



NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND RRUS SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
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DRAWN BY: CHECKED BY: APPROVED BY:

NK
RFDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	05/13/2023	BOX CUTS ISSUED FOR REVIEW
B	07/17/2023	100% CONSTRUCTION DRAWINGS
C	05/12/2024	CONSTRUCTION DESIGN CHANGE
D	05/26/2024	PLAN CHECK COMMENTS

AAE PROJECT NUMBER
SFSF0003698

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF0003698
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
ANTENNA PLAN,
RRUS PLAN AND SCHEDULE

SHEET NUMBER

A-1.1

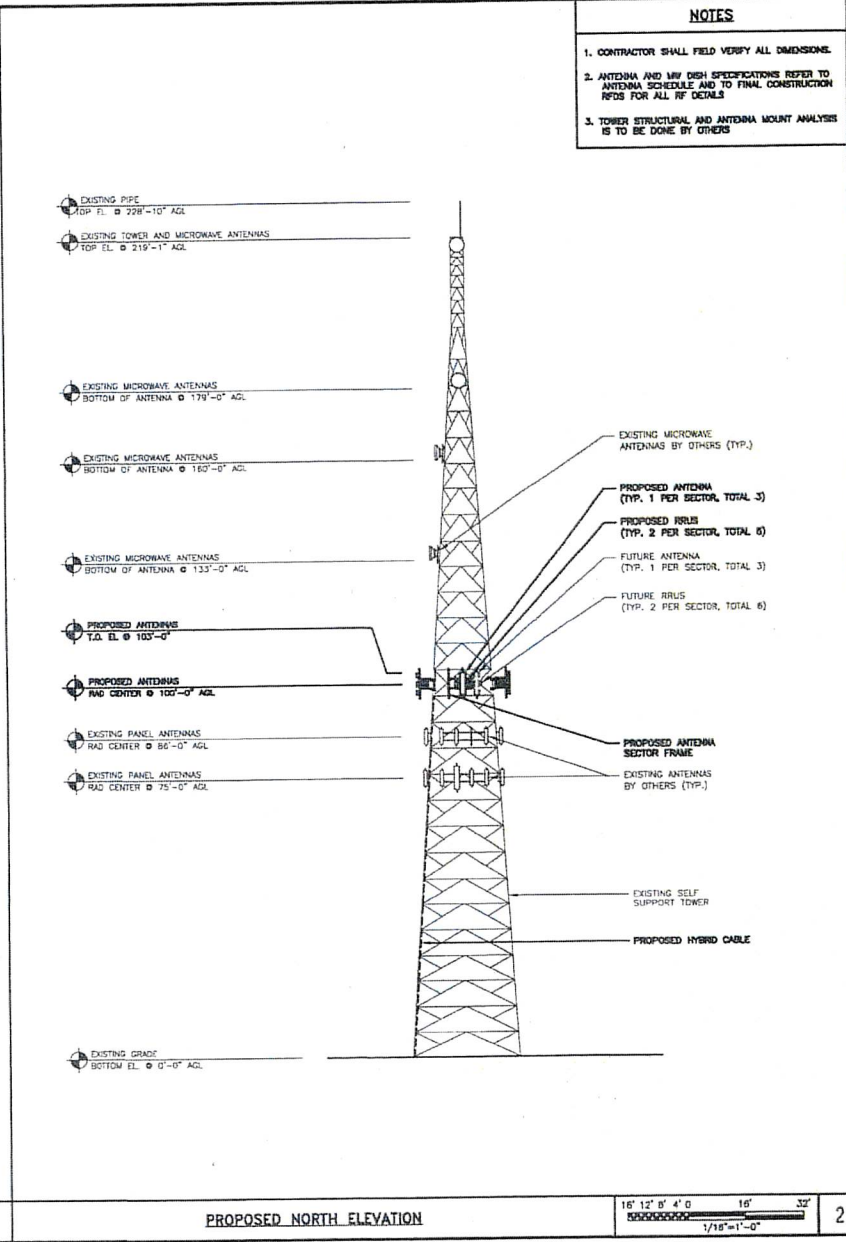
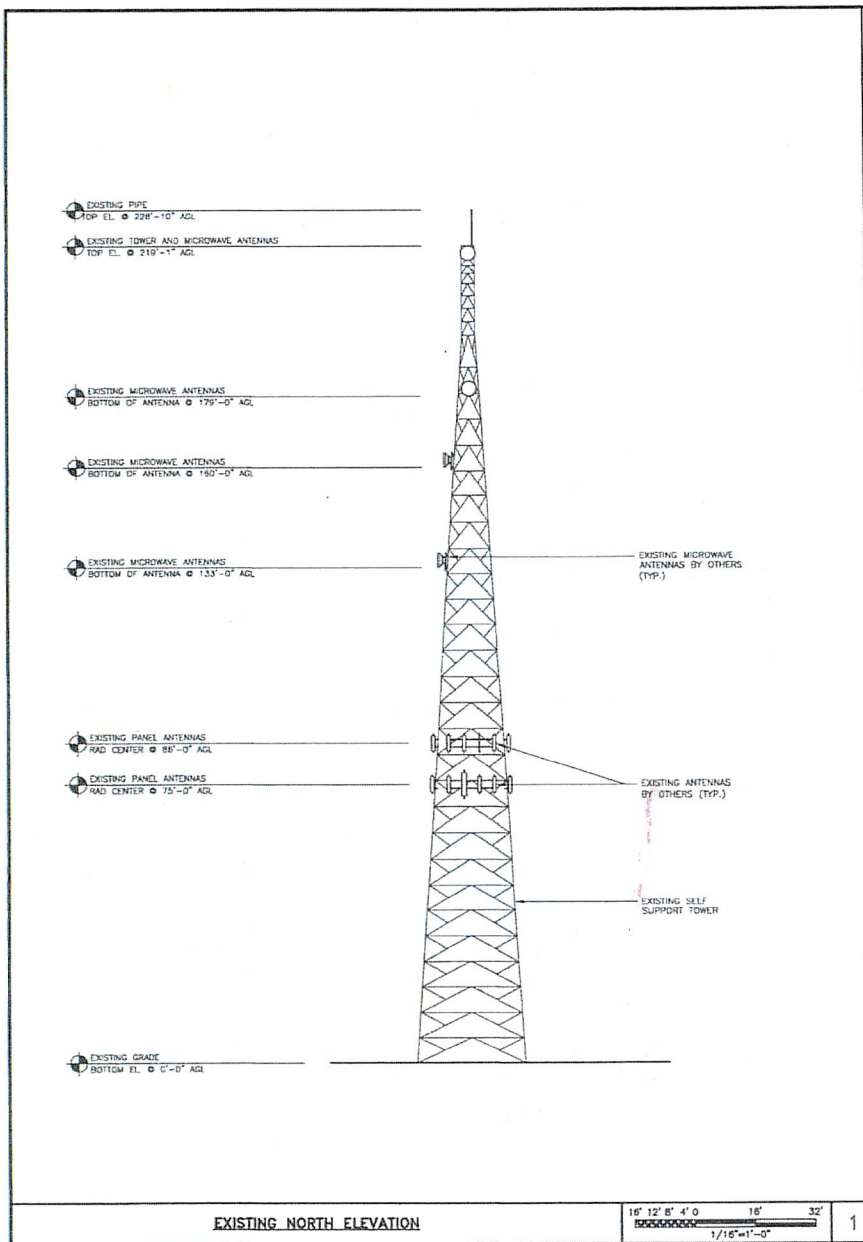
ANTENNA							TRANSMISSION CABLE
SECTOR	POSITION	EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (h/w/d)	AZIMUTH	
ALPHA	A1	PROPOSED	ANTENNA - TBD	-	72.4"x26.7"x7.7"	20°	100'-0"
	A2	PROPOSED	CELLMAX - CX12044X	5G	72.4"x26.7"x7.7"	20°	100'-0"
BETA	B1	PROPOSED	ANTENNA - TBD	-	72.4"x26.7"x7.7"	130°	100'-0"
	B2	PROPOSED	CELLMAX - CX12044X	5G	72.4"x26.7"x7.7"	130°	100'-0"
GAMMA	C1	PROPOSED	ANTENNA - TBD	-	72"x20"x6"	290°	100'-0"
	C2	PROPOSED	JMA - MX06PRO3605-21	5G	72"x20"x6"	290°	100'-0"

(1) HIGH-CAPACITY HYBRID CABLE (150' LONG)

RRH					NOTES
SECTOR	POSITION	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (h/w/d)	
ALPHA	A1	DAVID - FUTURE/TBD	TBD	-	1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS. 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.
	A2	DAVID - FUTURE/TBD	TBD	-	
BETA	B1	SAMSUNG - RF4450T-71A	n71	16.4"x15.0"x11.0"	
	B2	SAMSUNG - RF44510-73A	n70 1.055	15.0"x15.0"x6.9"	
GAMMA	C1	DAVID - FUTURE/TBD	TBD	-	
	C2	SAMSUNG - RF4450T-71A	n71	16.4"x15.0"x11.0"	
		DAVID - FUTURE/TBD	TBD	-	
		SAMSUNG - RF44510-73A	n70 1.055	15.0"x15.0"x6.9"	
		DAVID - FUTURE/TBD	TBD	-	
		SAMSUNG - RF4450T-71A	n71	16.4"x15.0"x11.0"	
		DAVID - FUTURE/TBD	TBD	-	
		SAMSUNG - RF44510-73A	n70 1.055	15.0"x15.0"x6.9"	

ANTENNA SCHEDULE

NO SCALE 3



- NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
 2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RTDS FOR ALL RF DETAILS.
 3. TOWER STRUCTURAL AND ANTENNA MOUNT ANALYSIS IS TO BE DONE BY OTHERS.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
www.TheCBRGroup.com

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DRAWN BY: NK CHECKED BY: APPROVED BY:

RTDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
A	05/12/2023	ISSUE CITY BUILDING PERMITS
B	07/17/2023	ISSUE CONSTRUCTION ORDINANCE
C	05/12/2024	CONSTRUCTION DESIGN CHANGE
D	05/04/2024	PLAN CHECK COMMENTS

ABC PROJECT NUMBER
SFSF000369B

DISH Wireless LLC
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
EXISTING AND PROPOSED
NORTH ELEVATION

SHEET NUMBER
A-2

EXISTING PIPE
TOP EL. @ 228'-10" AGL

EXISTING TOWER
TOP EL. @ 219'-1" AGL

EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 179'-0" AGL

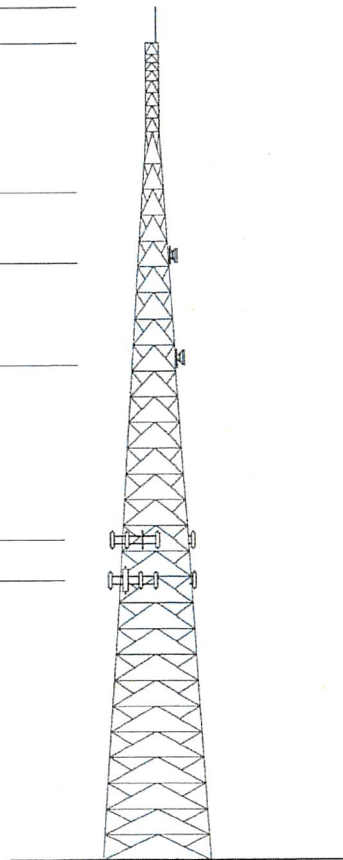
EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 180'-0" AGL

EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 133'-0" AGL

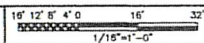
EXISTING PANEL ANTENNAS
RAD CENTER @ 86'-0" AGL

EXISTING PANEL ANTENNAS
RAD CENTER @ 75'-0" AGL

EXISTING GRADE
BOTTOM EL. @ 0'-0" AGL



EXISTING SOUTH ELEVATION



1

EXISTING PIPE
TOP EL. @ 228'-10" AGL

EXISTING TOWER
TOP EL. @ 219'-1" AGL

EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 179'-0" AGL

EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 180'-0" AGL

EXISTING MICROWAVE ANTENNAS
BOTTOM OF ANTENNA @ 133'-0" AGL

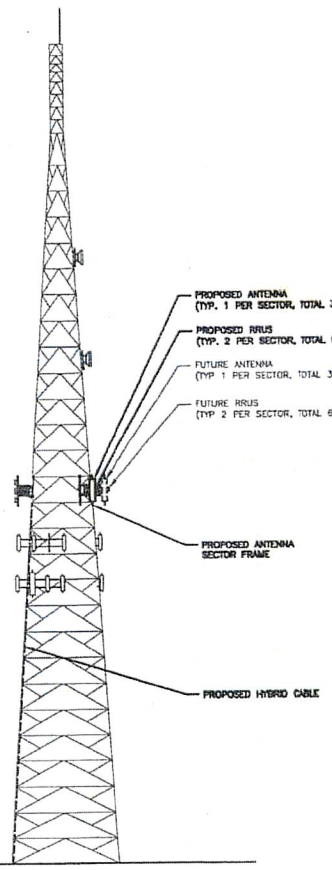
PROPOSED ANTENNAS
T.O. EL. @ 103'-0"

PROPOSED ANTENNAS
RAD CENTER @ 100'-0" AGL

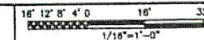
EXISTING PANEL ANTENNAS
RAD CENTER @ 86'-0" AGL

EXISTING PANEL ANTENNAS
RAD CENTER @ 75'-0" AGL

EXISTING GRADE
BOTTOM EL. @ 0'-0" AGL



PROPOSED SOUTH ELEVATION



2

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
3. TOWER STRUCTURAL AND ANTENNA MOUNT ANALYSIS IS TO BE DONE BY OTHERS



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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MARTINEZ, CA 94553
www.TheCBRgroup.com



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DRAWN BY: CHECKED BY: APPROVED BY:

NK

RFDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS	
REV	DATE DESCRIPTION
A	04/12/2023 NON CITY RECORD FOR REVIEW
B	07/17/2023 TOWER CONSTRUCTION DRAWINGS
C	02/12/2024 CONSTRUCTION DESIGN CHANGE
D	02/08/2024 PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF000369B

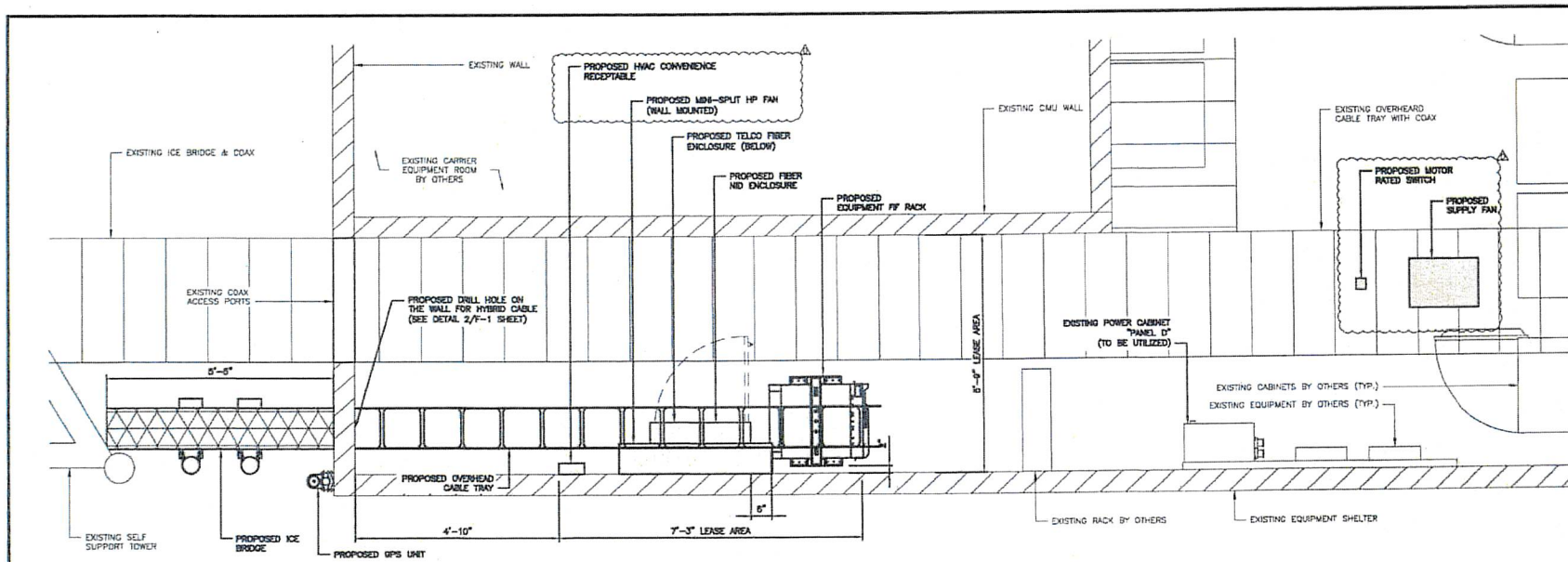
DISH Wireless LLC
PROJECT INFORMATION

SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
EXISTING AND PROPOSED
SOUTH ELEVATION

SHEET NUMBER

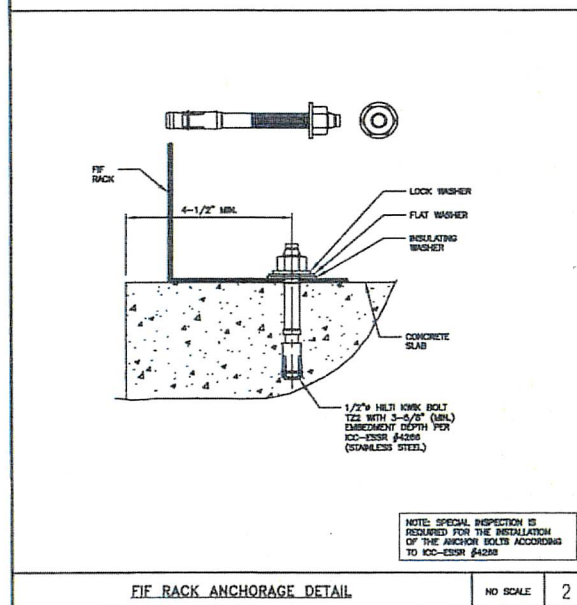
A-2.1



PROPOSED EQUIPMENT PLAN

12" 6" 0" 1" 2" 3"
3/4"=1'-0"

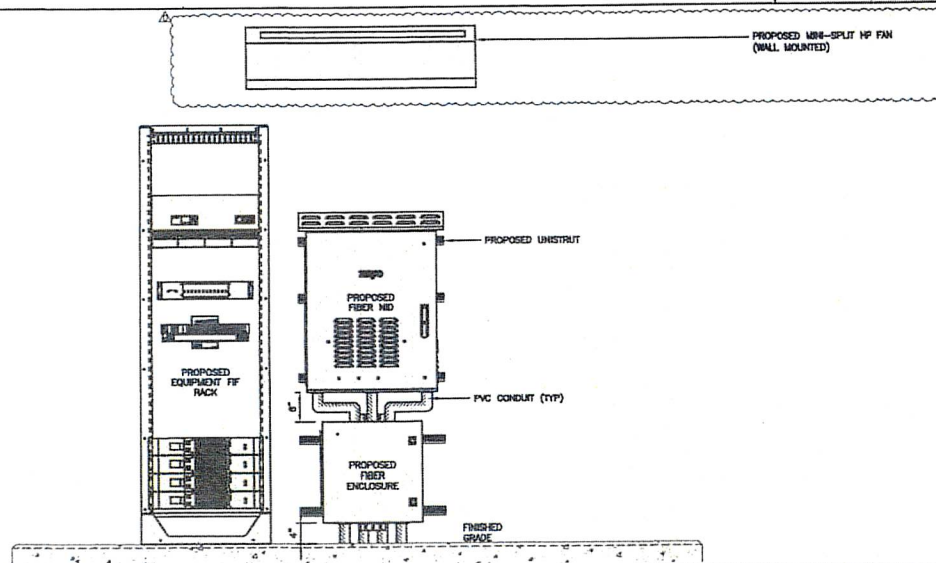
1



FIBER RACK ANCHORAGE DETAIL

NO SCALE

2



PROPOSED EQUIPMENT ELEVATION

12" 6" 0" 1" 2" 3"
1"=1'-0"

3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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MARTINEZ, CA 94553
www.TheCBRGroup.com



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DRAWN BY: CHECKED BY: APPROVED BY:

NK

RTDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	02/13/2023	BOX OF'S ISSUED FOR REVIEW
B	07/17/2023	100% CONSTRUCTION SUBMISSION
C	02/12/2024	CONSTRUCTION DESIGN CHANGE
D	02/09/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF0003698

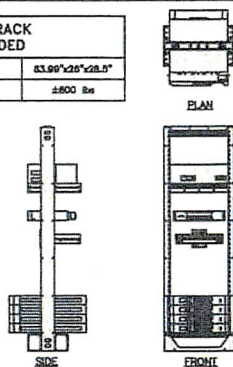
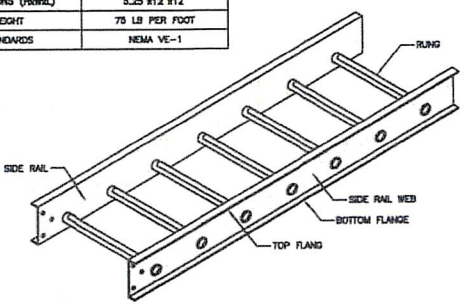
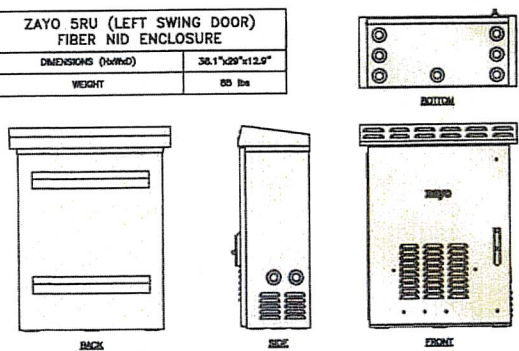


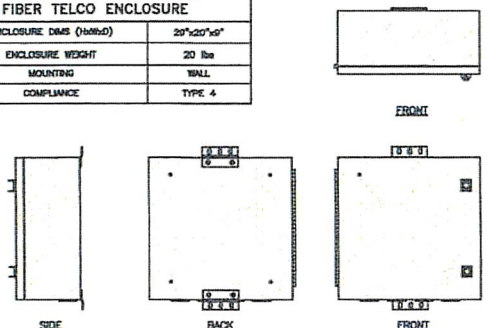
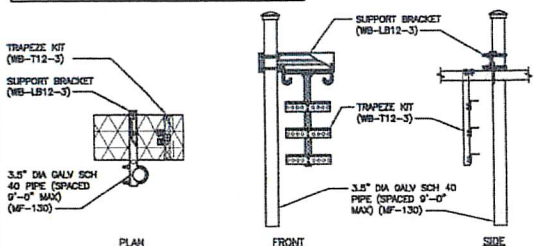
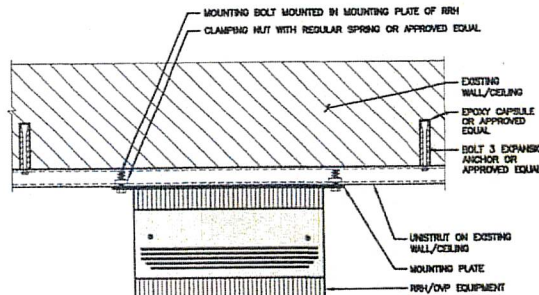

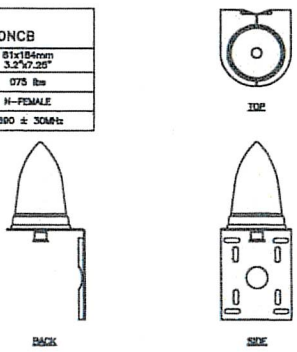
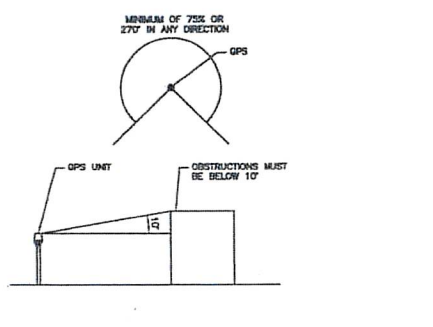
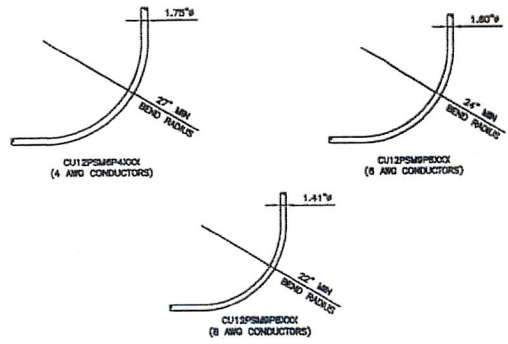
DISH Wireless L.L.C.
PROJECT INFORMATION

SFSF0003698
1340 VIRGINIA ST
VALLEJO, CA 94590

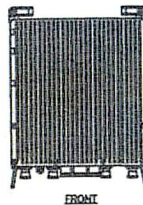
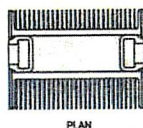
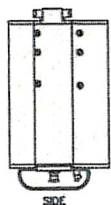
SHEET TITLE
PROPOSED EQUIPMENT
PLAN AND ELEVATION

SHEET NUMBER

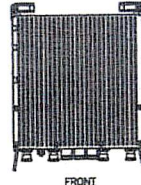
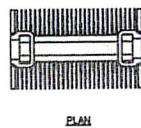
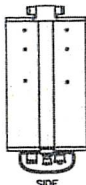
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<table border="1"> <tr><th colspan="2">FIF RACK LOADED</th></tr> <tr><td>DIMENSIONS (HxWxD):</td><td>83.99"x12.5"x28.5"</td></tr> <tr><td>WEIGHT:</td><td>±800 lbs</td></tr> </table>  <p>PLAN SIDE FRONT</p>	FIF RACK LOADED		DIMENSIONS (HxWxD):	83.99"x12.5"x28.5"	WEIGHT:	±800 lbs	<table border="1"> <tr><th colspan="2">COPE 1B48-12SL-12-09 ROOFTOP LADDER TRAY</th></tr> <tr><td>DIMENSIONS (HxWxD):</td><td>5.25"x12"x12"</td></tr> <tr><td>WEIGHT:</td><td>70 LB PER FOOT</td></tr> <tr><td>STANDARDS:</td><td>NEMA VE-1</td></tr> </table>  <p>TRUNG SIDE RAIL SIDE RAIL WEB BOTTOM FLANGE TOP FLANGE</p>	COPE 1B48-12SL-12-09 ROOFTOP LADDER TRAY		DIMENSIONS (HxWxD):	5.25"x12"x12"	WEIGHT:	70 LB PER FOOT	STANDARDS:	NEMA VE-1	<table border="1"> <tr><th colspan="2">ZAYO SRU (LEFT SWING DOOR) FIBER NID ENCLOSURE</th></tr> <tr><td>DIMENSIONS (HxWxD):</td><td>36.1"x29"x12.9"</td></tr> <tr><td>WEIGHT:</td><td>80 lbs</td></tr> </table>  <p>BACK SIDE FRONT</p>	ZAYO SRU (LEFT SWING DOOR) FIBER NID ENCLOSURE		DIMENSIONS (HxWxD):	36.1"x29"x12.9"	WEIGHT:	80 lbs	 <p>5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120</p>  <p>2840 HOWE ROAD, SUITE E MARTINEZ, CA 94553 www.TheCBRGroup.com</p>					
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<table border="1"> <tr><th colspan="2">CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE</th></tr> <tr><td>ENCLOSURE DIMS (HxWxD):</td><td>20"x20"x9"</td></tr> <tr><td>ENCLOSURE WEIGHT:</td><td>20 lbs</td></tr> <tr><td>MOUNTING:</td><td>WALL</td></tr> <tr><td>COMPLIANCE:</td><td>TYPE 4</td></tr> </table>  <p>FRONT SIDE BACK</p>	CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE		ENCLOSURE DIMS (HxWxD):	20"x20"x9"	ENCLOSURE WEIGHT:	20 lbs	MOUNTING:	WALL	COMPLIANCE:	TYPE 4	<table border="1"> <tr><th colspan="2">COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT</th></tr> <tr><td>DIMENSIONS (HxL):</td><td>180"x10"</td></tr> <tr><td>WEIGHT/ VOLUME:</td><td>325.0 LBS</td></tr> <tr><td>CABLE RUN (QTY):</td><td>12</td></tr> </table> <p>INCLUDED PRODUCTS:</p> <ul style="list-style-type: none"> WB-T12-3 TRAPEZE KIT, 3 RUNGS WB-LB12-3 SUPPORT BRACKET MF-130 DIRECT BURIAL PIPE COLUMB, 13'-4"  <p>TRAPEZE KIT (WB-T12-3) SUPPORT BRACKET (WB-LB12-3) 3.5" DIA GALV SCH 40 PIPE (SPACED 9'-0" MAX) (MF-130)</p>	COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT		DIMENSIONS (HxL):	180"x10"	WEIGHT/ VOLUME:	325.0 LBS	CABLE RUN (QTY):	12	 <p>MOUNTING BOLT MOUNTED IN MOUNTING PLATE OF RRH CLAMPING NUT WITH REGULAR SPRING OR APPROVED EQUAL EXISTING WALL/CEILING EPOXY CAPSULE OR APPROVED EQUAL BOLT 3 EXPANSION ANCHOR OR APPROVED EQUAL UNISTRUT ON EXISTING WALL/CEILING MOUNTING PLATE RRH/OMP EQUIPMENT</p> <p>NOTE: OR DISH Wireless L.L.C. APPROVED EQUIVALENT</p>	 <p>IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.</p> <p>DRAWN BY: _____ CHECKED BY: _____ APPROVED BY: _____</p> <p>NK _____</p> <p>RTDS REV # 3 04/05/2023</p>							
CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE																												
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<table border="1"> <tr><th colspan="2">PCTEL GPSGL-TMG-SPI-40NCB</th></tr> <tr><td>DIMENSIONS (DIAxH) MM/INCH:</td><td>81x184mm 3.2"x7.25"</td></tr> <tr><td>WEIGHT W/ACCESSORIES:</td><td>075 lbs</td></tr> <tr><td>CONNECTOR:</td><td>N-FEMALE</td></tr> <tr><td>FREQUENCY RANGE:</td><td>1550 ± 30MHz</td></tr> </table>  <p>TOP SIDE BACK</p>	PCTEL GPSGL-TMG-SPI-40NCB		DIMENSIONS (DIAxH) MM/INCH:	81x184mm 3.2"x7.25"	WEIGHT W/ACCESSORIES:	075 lbs	CONNECTOR:	N-FEMALE	FREQUENCY RANGE:	1550 ± 30MHz	 <p>MINIMUM OF 75% OR 270° IN ANY DIRECTION GPS GPS UNIT OBSTRUCTIONS MUST BE BELOW 10°</p>	 <p>1.75' R 22" MIN BEND RADIUS CU12PSMR400X (4 AWG CONDUCTORS) 1.50' R 24" MIN BEND RADIUS CU12PSMR600X (6 AWG CONDUCTORS) 1.41' R 22" MIN BEND RADIUS CU12PSMR600X (6 AWG CONDUCTORS)</p>	<p>CONSTRUCTION DOCUMENTS</p> <table border="1"> <tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th></tr> <tr><td>A</td><td>06/13/2023</td><td>ISSUE CITY BUILD FOR REVIEW</td></tr> <tr><td>B</td><td>07/17/2023</td><td>ISSUE CONSTRUCTION CHANGES</td></tr> <tr><td>C</td><td>08/12/2023</td><td>CONSTRUCTION DESIGN CHANGE</td></tr> <tr><td>D</td><td>08/08/2024</td><td>PLAN CHECK COMMENTS</td></tr> </table> <p>A&E PROJECT NUMBER SFSF000369B</p> <p>DISH Wireless L.L.C. PROJECT INFORMATION SFSF000369B 1340 VIRGINIA ST VALLEJO, CA 94590</p> <p>SHEET TITLE EQUIPMENT DETAILS</p> <p>SHEET NUMBER A-4</p>	REV	DATE	DESCRIPTION	A	06/13/2023	ISSUE CITY BUILD FOR REVIEW	B	07/17/2023	ISSUE CONSTRUCTION CHANGES	C	08/12/2023	CONSTRUCTION DESIGN CHANGE	D	08/08/2024	PLAN CHECK COMMENTS
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B	07/17/2023	ISSUE CONSTRUCTION CHANGES																										
C	08/12/2023	CONSTRUCTION DESIGN CHANGE																										
D	08/08/2024	PLAN CHECK COMMENTS																										
GPS DETAIL	GPS MINIMUM SKY VIEW REQUIREMENTS	CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIISES																										

SAMSUNG RF4450T-71A	
DIMENSIONS (HxWxD)	15.0"x16.5"x11.0"
WEIGHT	54.8 lbs
DC POWER IN	-50V to -55V
POWER SUPPLY VOLTAGE	-48Vdc (NOMINAL)

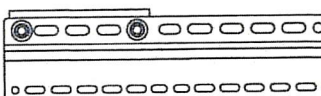


SAMSUNG RF4451D-70A	
DIMENSIONS (HxWxD)	15.0"x15.0"x6.0"
WEIGHT	61.3 lbs
DC POWER IN	-50V to -55V
POWER SUPPLY VOLTAGE	-48Vdc (NOMINAL)

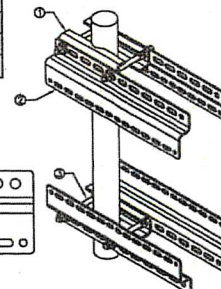


SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE CHANNEL BRACKET
2	1/8" Z-BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



RRH DETAIL

NO SCALE

1

RRH DETAIL

NO SCALE

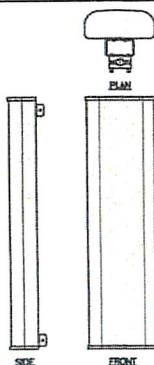
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RRH_MOUNT DETAIL

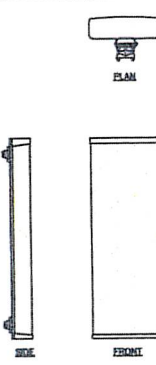
NO SCALE

3

JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x6.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	54.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



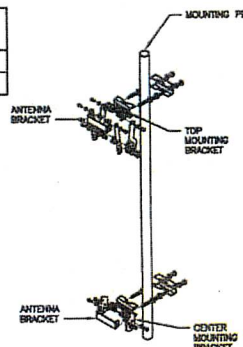
CELLMAX 12044x CMA-UBTULBULBH/6516/16/21/21	
DIMENSIONS (HxWxD)(HxW)	1840/260/100 72.4"/20.7"/3.9"/7.7"
CONNECTORS	8 x 4.3-10 FEMALE
WEIGHT (kg/lb)	48/105
WEIGHT WITH BRACKETS (kg/lb)	53/116



JMA ANTENNA MOUNT BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:
KIT #91900318, TOP AND BOTTOM BRACKETS
FOR 4-, 6-, AND 8-FOOT ANTENNAS
ANTENNA BRACKET NOT PART OF KIT

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



ANTENNA DETAIL

NO SCALE

4

ANTENNA DETAIL

NO SCALE

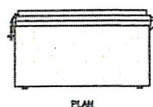
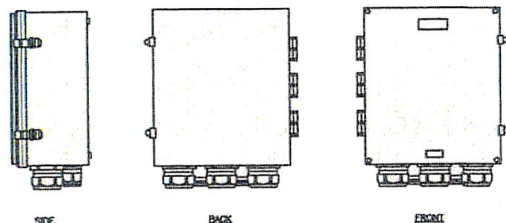
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ANTENNA BRACKET DETAIL

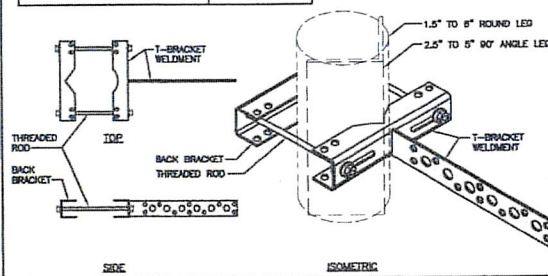
NO SCALE

6

RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	16.98"x14.39"x0.15"
WEIGHT	21.02 LBS

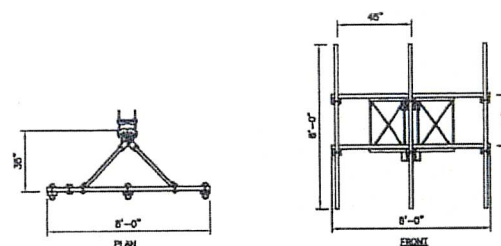


SITEPRO1 T600 UNIVERSAL T-BRACKET	
DIMENSIONS (HxWxD)	2.25"x10.0"x15.25"
WEIGHT/ VOLUME	5.00 LBS



COMMSCOPE V-FRAME MTC5975083	
FACE SIZE	8"-0"
WEIGHT	392.135 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT
FOR REFERENCE ONLY



SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

VERTICAL CABLE SUPPORT DETAIL

NO SCALE

8

ANTENNA FRAME DETAIL

NO SCALE

9

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wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

THE
CBR
GROUP

2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
www.TheCBRGroup.com



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OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

NK

RFD'S REV #1: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	04/13/2023	BOOK DOTS MISSING FOR REVIEW
B	07/17/2023	100% CONSTRUCTION DRAWINGS
C	07/19/2023	CONSTRUCTION DESIGN CHANGE
D	08/08/2023	PLAN CHECK COMMENTS

ABLE PROJECT NUMBER

SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION

SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

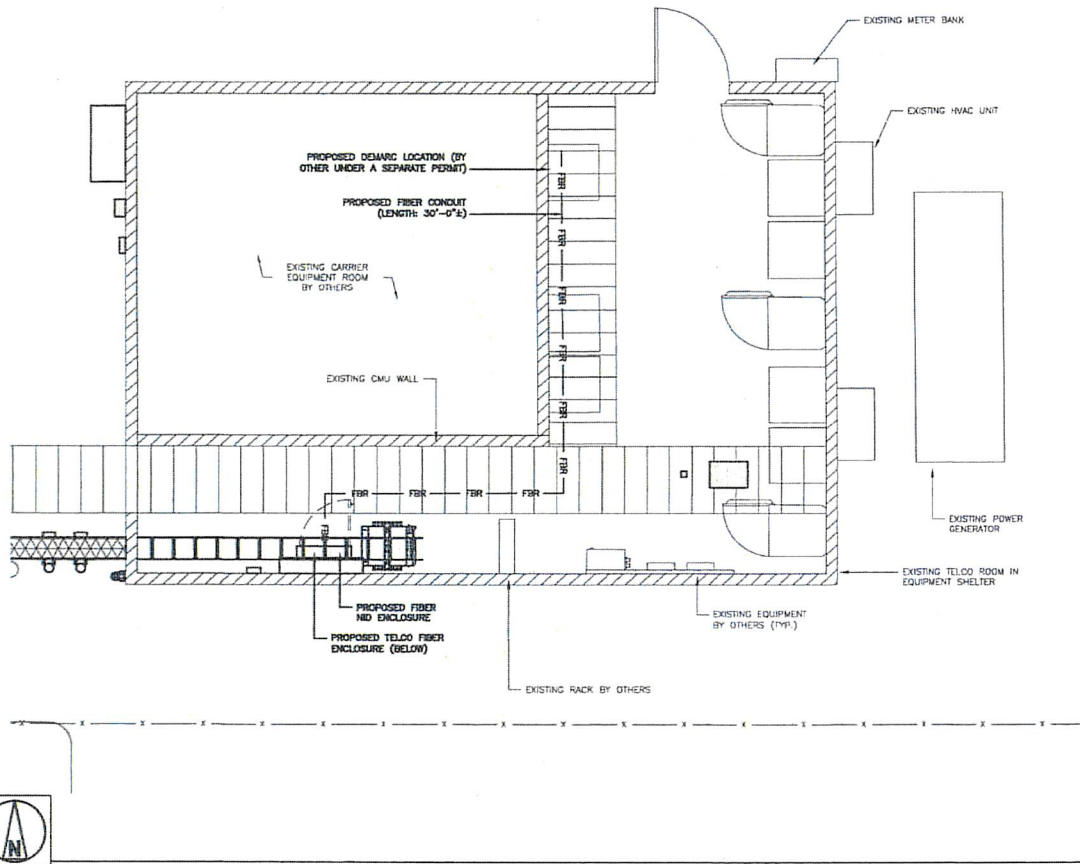
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

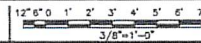
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NOTES

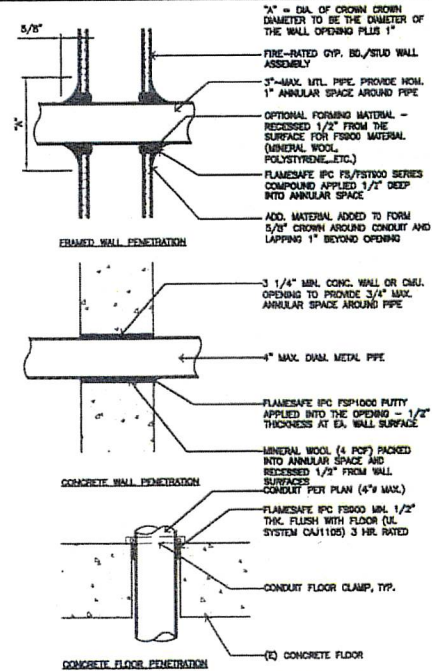
1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. THE GROUND LEASE PROVIDES BROAD/BLANCKET UTILITY RIGHTS. "THRU" AND "THRU" PATH DEPICTED ON A-1 AND E-1 ARE BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY TOWER OWNER AS FURTHER COORDINATION MAY BE NEEDED.



FIBER ROUTE PLAN



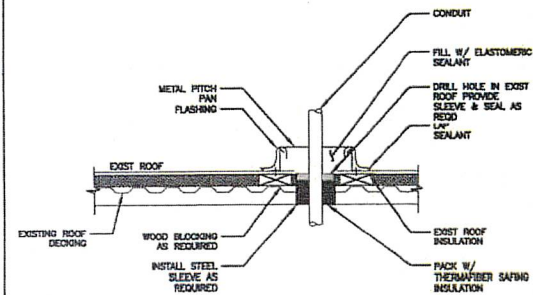
1



- NOTE:
1. CONTRACTOR TO X-RAY PRIOR TO DRILLING OR CORING TO LOCATE (C) RE-BAR. DO NOT CUT RE-BAR.
 2. ALL PENETRATIONS SHALL CONFORM TO TITLE 24, CALIF. BLDG. CODE, SECTION 714.
 3. PENETRATIONS THRU RATED WALL ASSEMBLIES SHALL COMPLY WITH TITLE 24, CBC SECTION 709.6 AS FOLLOWS:
F-RATING: PENETRATIONS 4" OR LESS
T-RATING: PENETRATIONS LARGER THAN 4". PENETRATIONS AT CORRIDOR CEILINGS WHICH ARE NOT RATED, BELOW ANY CEILING
4. PENETRATIONS THRU FLOOR / CEILINGS ASSEMBLIES SHALL COMPLY WITH TITLE 24, CBC SECTION 710.3 AS FOLLOWS:
F-RATING: PENETRATIONS 4" OR LESS
T-RATING: PENETRATIONS LARGER THAN 4". PENETRATIONS NOT CONTAINED W/IN A WALL

PENETRATION DETAIL (IF APPLICABLE)

NO SCALE 2



CONDUIT ROOF PENETRATION DETAIL (IF APPLICABLE)

NO SCALE 3

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wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

THE CBR GROUP
2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
www.TheCBRGroup.com



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DRAWN BY: CHECKED BY: APPROVED BY:

NK 04/05/2023

RFUS REV # 3

CONSTRUCTION DOCUMENTS

SUBMITTALS	
REV	DATE DESCRIPTION
A	05/13/2023 BIDDING SET FOR REVIEW
B	07/17/2023 100% CONSTRUCTION DRAWINGS
C	05/12/2024 CONSTRUCTION DESIGN CHANGE
D	05/12/2024 PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF000369B

DISH Wireless LLC.

PROJECT INFORMATION

SFSF000369B

1340 VIRGINIA ST

VALLEJO, CA 94590

SHEET TITLE

FIBER ROUTE

PLAN AND DETAILS

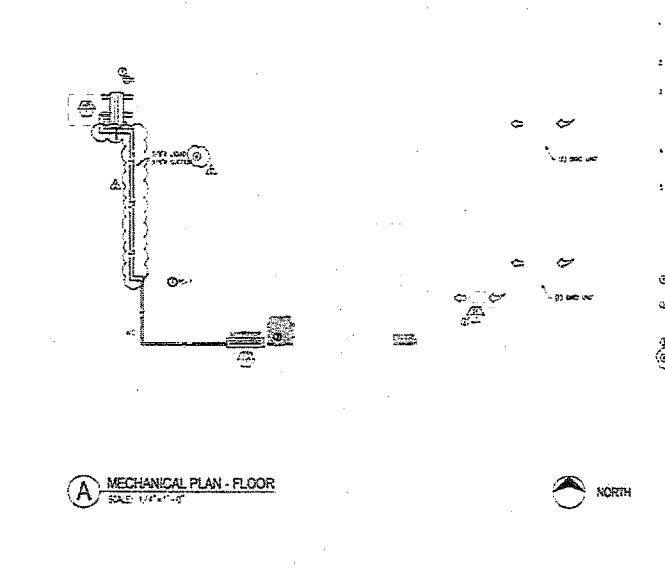
SHEET NUMBER

F-1

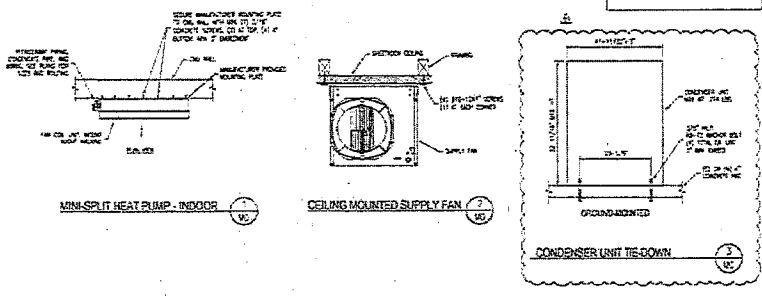
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MINI-SPLIT HP FAN COIL SCHEDULE										
SAC	NAME	APPL	LOCATION	FWS	DR	ELECTRIC			REMARKS	
						WATTAGE	FLA	WVA		
PE-1	WASHROOM	POS-030607	ATTEN	76	6PH	208V-45	5.5A	1.0	48	WALL MOUNTED IMPROVE STAINLESS STEEL

INLINE SUPPLY FAN SCHEDULE										
NO.	BRAND	MODEL	HEATING TYPE	COOLING	HP	CFM	ELECTRICAL			REMARKS
							VOLTS	AMPS	PHASE	
1	EDCO	FS-1000	WATER COIL & GAS	WATER	1/2	24"	10-14-1/2	3	272	11" TYPING MOUNTED 1/4" 12" RUN CONTROLS

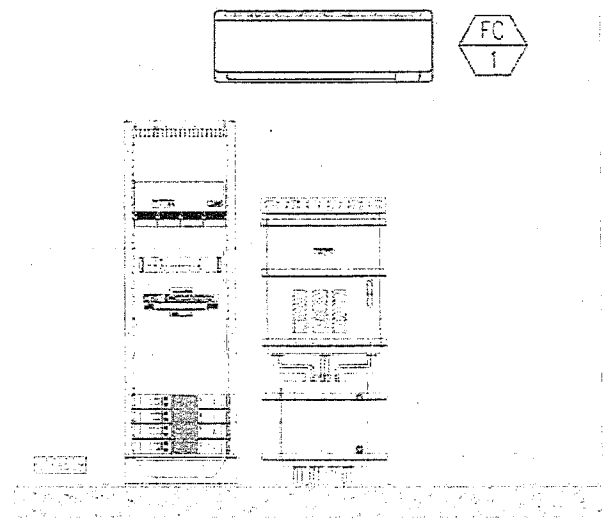
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MECHANICAL SHEET INDEX	
ME	MECHANICAL SCHEDULES, PLAN DETAILS, & GENERAL NOTES
MI	MECHANICAL PLAN - ELEVATION VIEW
MECHANICAL SCOPE OF WORK	
1)	INSTALLATION OF NEW OUTLETS, MAN-SPLIT UNIT AND ALL ASSOCIATED PIPING FOR COOLING (N) EQUIPMENT
2)	INSTALLATION OF NEW INLINE FAN FOR CIRCULATION

[illegible]

MECHANICAL
SCHEDULES
& GEN. NOTES

MO



A MECHANICAL PLAN - ELEVATION VIEW
SCALE: 1"=1'-0"

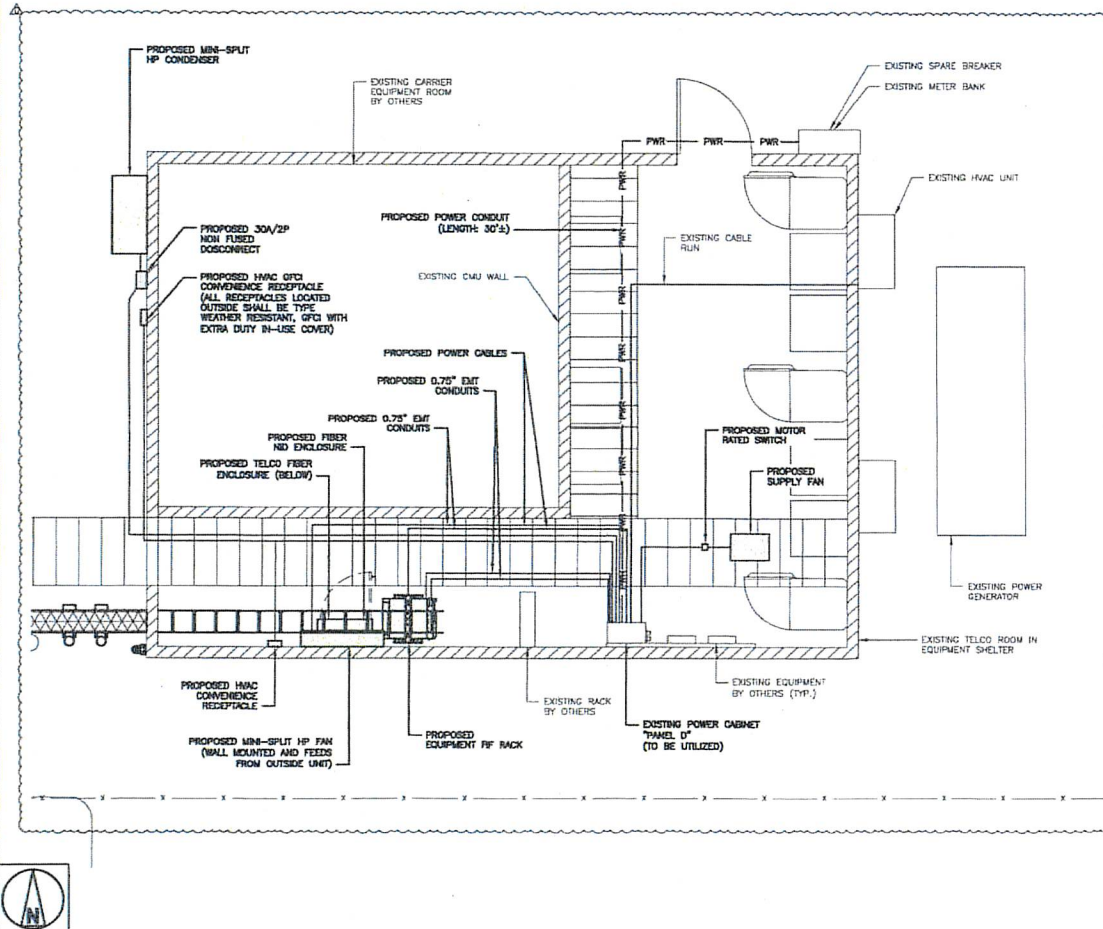
OPTIMIZEDENERGY & FACILITIES CONSULTING, INC. <small>AN ASSOCIATE OF THE</small> OPTIMIZED ENERGY GROUP	DATE: 04-10-2023 PROJECT:
DISH WIRELESS 1340 VIRGINIA ST. VALLEJO, CA 94590	
MECHANICAL PLAN ELEVATION VIEW	
M1	

NOTES

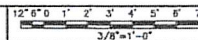
- CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
- ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
- THE GROUND LEASE PROVIDES BROAD/BANKET UTILITY RIGHTS. "PWR" AND "FIB" PATH DEPICTED ON A-1 AND E-1 ARE BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY TOWER OWNER AS FURTHER COORDINATION MAY BE NEEDED.

DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

- CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
- LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
- CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
- CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
- CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PNEUMATIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
- INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDING AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
- ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
- PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
- ALL TRENCHES IN COMPOUND TO BE HAND DUG



UTILITY ROUTE PLAN



1

ELECTRICAL NOTES

NO SCALE 2



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DRAWN BY: NK CHECKED BY: APPROVED BY:

RPTD REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	05/13/2023	REV GDS SUBMIT FOR REVIEW
B	05/17/2023	ISSUE CONSTRUCTION PERMITS
C	05/19/2023	CONSTRUCTION PERMITS ISSUED
D	05/25/2023	PLAN CHECK COMMENTS

AKA PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
ELECTRICAL ROUTE
PLAN AND NOTES

SHEET NUMBER
E-1

PROPOSED DISH Wireless L.L.C. UNISTRUT

PROPOSED FIBER PROVIDER 1-1/4" FLEX CONDUITS

FIBER PROVIDER TO PUNCH TOP OF TELCO BOX OF NO ENCLOSURE AND INSTALL 1-1/4" LIQUID TIGHT CONNECTORS, UL LISTED, NYLON MATERIAL, WITH C-RING GASKET

FIBER PROVIDER TO INSTALL 1-1/4" FLEX CONDUITS BETWEEN FDP TELCO BOX & NO

PROPOSED DISH Wireless L.L.C. TELCO FIBER ENCLOSURE

PROPOSED DISH Wireless L.L.C. 1-1/2" FIBER TO CABINET

PROPOSED DISH Wireless L.L.C. 2" CONDUIT FROM COMMERCIAL FIBER VAULT

NOTE: FIBER PROVIDER WILL NEED TO PROVIDE AN ADDITIONAL SFT UNISTRUT, 2 U-BOLTS WITH 4 NUTS, IN THE EVENT THE BRACKET SPACING DOESN'T LINE UP WITH CURRENT SPACING BELOW

IN IN OUT

FIBER PROVIDER TO TERMINATE POWER TO FIBER PROVIDER NO

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE (6' TAIL)

PROPOSED DISH Wireless L.L.C. 10 AMP DISTRIBUTION BREAKER

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE

PROPOSED DISH Wireless L.L.C. 1-1/2" POWER FROM CABINET

INTERSECT CAM-LOCK GENERATOR CONNECTOR ICGC-1P

ENCLOSURE DIMENSIONS (HxWxD):	23"x10"x4.5"
WEIGHT:	14 lbs
OPERATING AC VOLTAGE	400A, 208/120V

TOP

SIDE

FRONT

DISH Wireless L.L.C. PROVIDES 12AWG WIRE (6' TAIL)

PROPOSED DISH Wireless L.L.C. UNISTRUT

PROPOSED DISH Wireless L.L.C. 10 AMP DISTRIBUTION BREAKER

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE

PROPOSED DISH Wireless L.L.C. 1-1/2" POWER FROM CABINET

DISH Wireless L.L.C. INSTALLS 1-1/2" CONDUITS FOR POWER AND FIBER TO CABINET

DISH Wireless L.L.C. FIBER DISTRIBUTION PANEL

PROPOSED DISH Wireless L.L.C. TELCO FIBER ENCLOSURE

DISH Wireless L.L.C. FIBER JUMPER TO CABINET WILL NEED TO BE TERMINATED BY FIBER PROVIDER ON OTHER SIDE OF BULKHEAD/ALC TO LC CONNECTOR WHERE CIRCUIT IS TERMINATED

PROPOSED FIBER PROVIDER FIBER LATERAL FROM RIGHT OF WAY TO STREET, TERMINATED TO FDP

PROPOSED DISH Wireless L.L.C. 1-1/2" FIBER TO CABINET

PROPOSED DISH Wireless L.L.C. 2" CONDUIT FROM COMMERCIAL FIBER VAULT

IN IN OUT

LIT TELCO BOX - INTERIOR WIRING LAYOUT (OPTIONAL)	NO SCALE	1	GEN PLUG DETAIL	NO SCALE	2	DARK TELCO BOX - INTERIOR WIRING LAYOUT	NO SCALE	3
NOT USED	NO SCALE	4	NOT USED	NO SCALE	5	NOT USED	NO SCALE	6
NOT USED	NO SCALE	7	NOT USED	NO SCALE	8	NOT USED	NO SCALE	9

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RFDS REV # 3 04/03/2023

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
A	06/13/2023	FOR CDP'S ISSUED FOR REVIEW
B	07/17/2023	FOR CONSTRUCTION PERMITS
C	08/14/2024	CONSTRUCTION DESIGN CHANGE
D	08/08/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF000369B

DISH Wireless L.L.C. PROJECT INFORMATION

SFSF000369B

1340 VIRGINIA ST

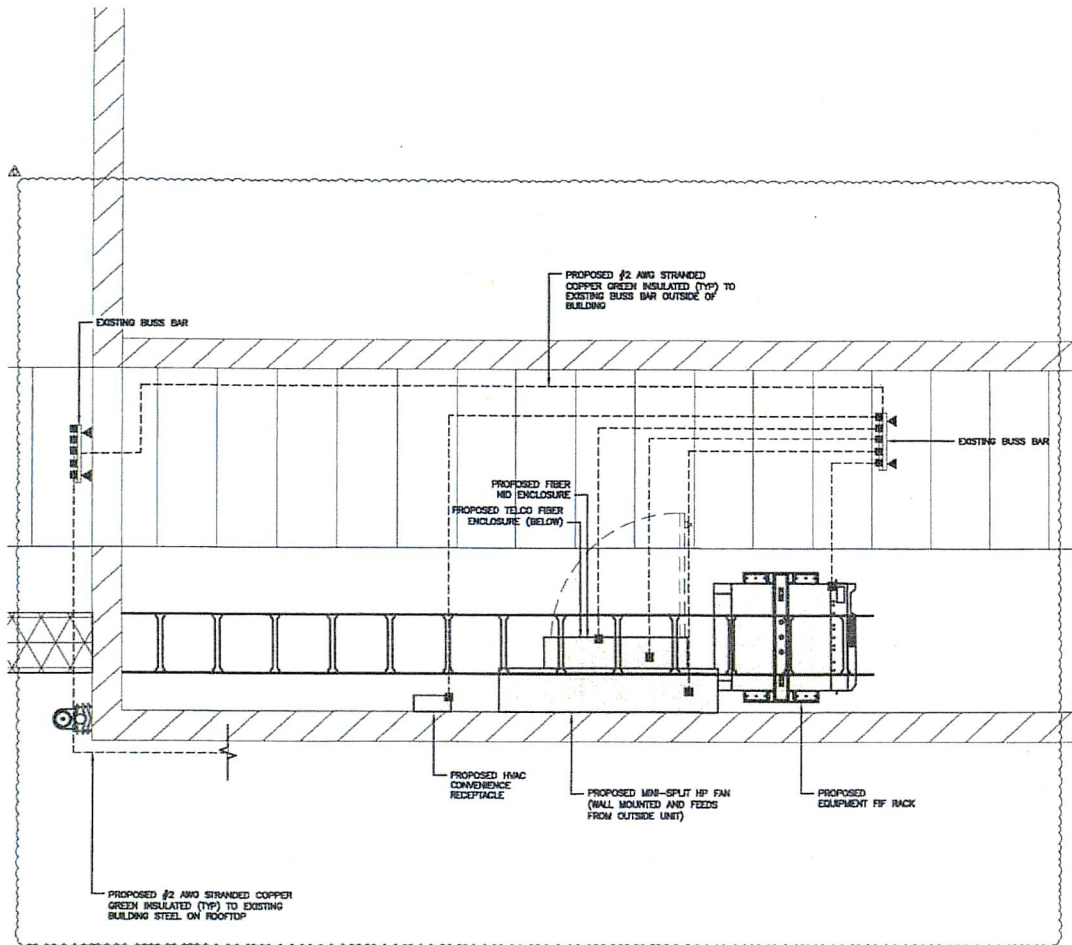
VALLEJO, CA 94590

SHEET TITLE

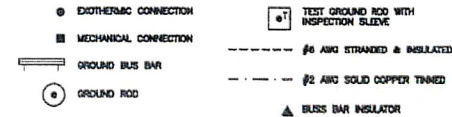
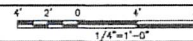
ELECTRICAL DETAILS

SHEET NUMBER

E-2



GROUNDING PLAN



GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. NO EXOTHERMIC WELDING ON ROOFTOP.

GROUNDING ROOFTOP KEY NOTES

- (A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) ROOFTOP GROUND SYSTEM: THE GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID THINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING OR ROOM.
- (E) GROUND ROD: UL LISTED COPPER CLAD STEEL, MINIMUM 1/2" DIAMETER BY 10FT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) CELL REFERENCE GROUND BAR (CRGB): POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO COMMON BUILDING GROUND SYSTEM WITH (2) #2 SOLID THINNED COPPER CONDUCTORS.
- (G) HATCH PLATE GROUND BAR: BOND TO THE COMMON BUILDING GROUND SYSTEM WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) EXTERIOR CABLE ENTRY POINT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE ROOM. BOND TO GROUND RING WITH A #2 AWG SOLID THINNED COPPER CONDUCTORS WITH MECHANICAL CONNECTIONS.
- (I) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENT'S METAL FRAMEWORK.
- (K) INTERIOR LIMIT BONDING: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L) FENCE AND GATE GROUNDING: METAL FENCES SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM WITH A #2 AWG SOLID THINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M) EXTERIOR LIMIT BONDING: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM USING #2 THINNED SOLID COPPER WIRE.
- (N) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE THINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURED GROUND RING.
- (O) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR.
- (P) ROOFTOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO COMMON BUILDING GROUND SYSTEM. REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES



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NK --- ---

RFD5 REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS	
REV	DESCRIPTION
A	05/15/2023 NEW CITY REVIEW FOR REVIEW
B	07/17/2023 HOOR CONSTRUCTION DRAWINGS
C	08/15/2024 CONSTRUCTION DESIGN CHANGE
D	08/06/2024 PLAN CHECK COMMENTS

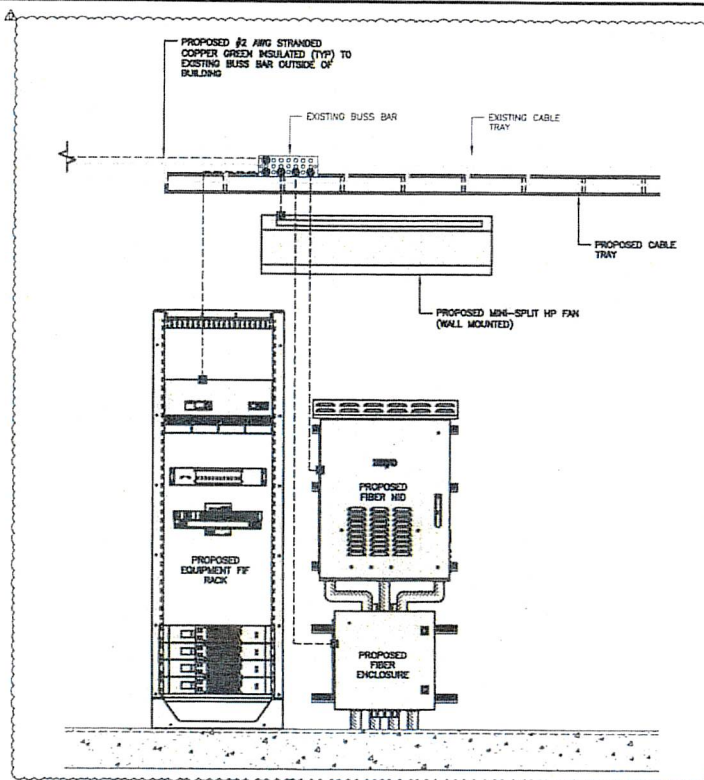
A/E PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

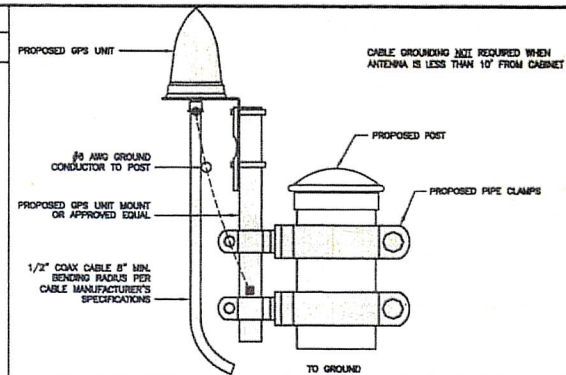
G-1



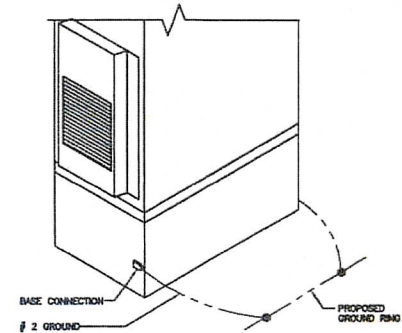
EQUIPMENT ELEVATION GROUNDING DETAIL

NOTES

EQUIPMENT CABINET OMITTED FOR CLARITY



TYPICAL GPS UNIT GROUNDING



OUTDOOR CABINET GROUNDING

dish
wireless.

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RFDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

REV	DATE	SUBMITTALS
A	05/12/2023	FOR CITY REVIEW FOR PERMIT
B	07/11/2023	FOR CONSTRUCTION DRAWINGS
C	05/12/2024	CONSTRUCTION DESIGN CHANGE
D	08/06/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-2

NOT USED

NO SCALE

4

NOT USED

NO SCALE

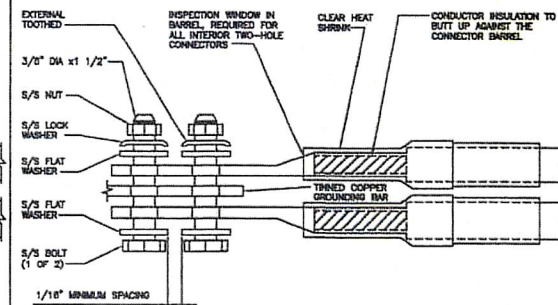
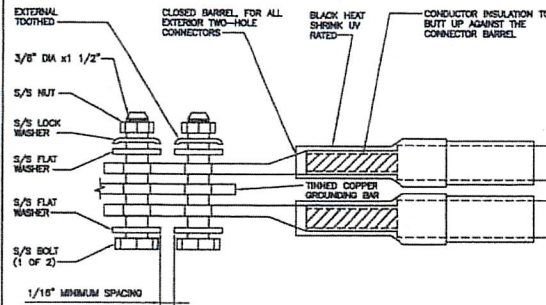
5

NOT USED

NO SCALE

6

1. EXOTHERMIC WELD (2) TWO #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS. COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY. COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHIMMERS).



TYPICAL GROUNDING NOTES

NO SCALE

1

TYPICAL EXTERIOR TWO HOLE LUG

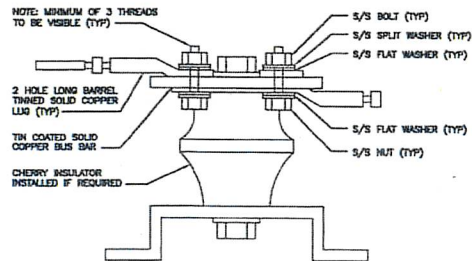
NO SCALE

2

TYPICAL INTERIOR TWO HOLE LUG

NO SCALE

3



LUG DETAIL

NO SCALE

4

NOT USED

NO SCALE

5

NOT USED

NO SCALE

6

NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

dish
wireless.

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RFDS REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	05/12/2023	ISSUE CDS FOR REVIEW
B	07/11/2023	ISSUE CONSTRUCTION DOCUMENTS
C	07/12/2024	CONSTRUCTION DESIGN CHANGE
D	05/04/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF0003698

DISH Wireless LLC

PROJECT INFORMATION

SFSF0003698
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-3

HYBRID/DISCREET CABLES		3/4" TAPE WIDTHS WITH 3/4" SPACING											
LOW-BAND RRH (600 MHz N71 BASEBAND) + (850 MHz N25 BAND) - OPTIONAL PER MARKET ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BAND)		ALPHA RRH				BETA RRH				GAMMA RRH			
		PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT	PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT	PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT
		RED ORANGE	RED ORANGE	RED ORANGE	RED ORANGE	BLUE ORANGE	BLUE ORANGE	BLUE ORANGE	BLUE ORANGE	GREEN ORANGE	GREEN ORANGE	GREEN ORANGE	GREEN ORANGE
		RED PURPLE	RED PURPLE	RED PURPLE	RED PURPLE	BLUE PURPLE	BLUE PURPLE	BLUE PURPLE	BLUE PURPLE	GREEN PURPLE	GREEN PURPLE	GREEN PURPLE	GREEN PURPLE
HYBRID/DISCREET CABLES		EXAMPLE 1	EXAMPLE 2	EXAMPLE 3	CANISTER COAX #2 (ALPHA)								
INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.		RED BLUE GREEN ORANGE PURPLE	RED BLUE GREEN YELLOW	RED RED									
EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS.													
EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS													
EXAMPLE 3 - MAIN COAX WITH GROUND MOUNTED RRHs.													
FIBER JUMPERS TO RRHs		LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH
LOW-BAND RRH FIBER CABLES HAVE SECTOR STRIPES ONLY.		RED ORANGE	RED PURPLE	BLUE ORANGE	BLUE PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE
POWER CABLES TO RRHs		LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH
LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPES ONLY.		RED ORANGE	RED PURPLE	BLUE ORANGE	BLUE PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE
RET MOTORS AT ANTENNAS		ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND	ANTENNA 1 ANTENNA 1 MID BAND LOW BAND
RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.		IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN	IN IN
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.		RED PURPLE	RED ORANGE	BLUE PURPLE	BLUE ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE	GREEN PURPLE	GREEN ORANGE
MICROWAVE RADIO LINKS		FORWARD AZIMUTH OF 0-120 DEGREES PRIMARY SECONDARY	FORWARD AZIMUTH OF 120-240 DEGREES PRIMARY SECONDARY	FORWARD AZIMUTH OF 240-359 DEGREES PRIMARY SECONDARY	FORWARD AZIMUTH OF 240-359 DEGREES PRIMARY SECONDARY								
LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE. ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.		WHITE RED WHITE	WHITE RED WHITE	WHITE BLUE WHITE	WHITE BLUE WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE
MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID'S.		WHITE RED WHITE	WHITE RED WHITE	WHITE BLUE WHITE	WHITE BLUE WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE

RF CABLE COLOR CODES

NO SCALE

1

NOT USED

NO SCALE

4

LOW BANDS (N71-N28)
OPTIONAL - (RED)

ORANGE

AWS
(N66-N70-N71-BLACK)

PURPLE

CBRS TECH
(3 GHz)

YELLOW

NEGATIVE SLANT PORT
ON ANT/RRH

WHITE

ALPHA SECTOR

RED

BETA SECTOR

BLUE

GAMMA SECTOR

GREEN

COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

3

dish
wireless.

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LITTLETON, CO 80120

THE
CBR
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OF A LICENSED PROFESSIONAL ENGINEER
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

NK

RFDS REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	04/12/2023	USE CDRS ISSUED FOR REVIEW
B	07/17/2023	100% CONSTRUCTION DRAWING
C	07/17/2024	CONSTRUCTION DESIGN CHANGE
D	04/05/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSF000369B

DISH Wireless LLC,
PROJECT INFORMATION

SFSF000369B

1340 VIRGINIA ST

VALLEJO, CA 94590

SHEET TITLE

RF

CABLE COLOR CODE

SHEET NUMBER

RF-1

EXOTHERMIC CONNECTION
MECHANICAL CONNECTION
BUSS BAR INSULATOR
CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
EXOTHERMIC WITH INSPECTION SLEEVE
GROUNDING BAR
GROUND ROD
TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48"-78"

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALUM
LED-1-1-254400/51K-594-120-PE-DOB70D

CHAIN LINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

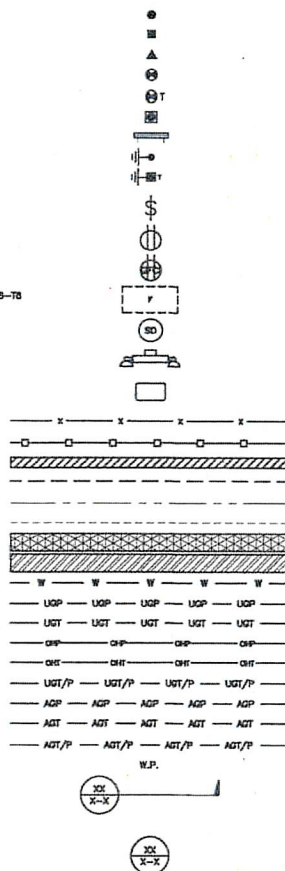
ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

SECTION REFERENCE

DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT
ABV ABOVE
AC ALTERNATING CURRENT
ADDL ADDITIONAL
AFF ABOVE FINISHED FLOOR
AFD ABOVE FINISHED GRADE
AGL ABOVE GROUND LEVEL
AIC AMPERAGE INTERRUPTION CAPACITY
ALUM ALUMINUM
ALT ALTERNATE
ANT ANTENNA
APPROX APPROXIMATE
ARCH ARCHITECTURAL
ATS AUTOMATIC TRANSFER SWITCH
AWG AMERICAN WIRE GAUGE
BATT BATTERY
BLDG BUILDING
BLK BLOCK
BLDG BLOCKING
BM BEAM
BTC BARE TINNED COPPER CONDUCTOR
BOF BOTTOM OF FOOTING
CAB CABINET
CAHT CANTILEVERED
CHG CHARGING
CLD CEILING
CLR CLEAR
COL COLUMN
COMM COMMON
CONC CONCRETE
CONSTR CONSTRUCTION
DBL DOUBLE
DC DIRECT CURRENT
DEPT DEPARTMENT
DF DOUGLAS FIR
DIA DIAMETER
DAG DIAGONAL
DIM DIMENSION
DWD DRAWING
DNL DOWEL
EA EACH
EC ELECTRICAL CONDUCTOR
EL ELEVATION
ELEC ELECTRICAL
EMT ELECTRICAL METALLIC TUBING
ENG ENGINEER
EQ EQUAL
EXP EXPANSION
EXT EXTERIOR
EW EACH WAY
FAB FABRICATION
FF FRESH FLOOR
FG FRESH GRADE
FF FACILITY INTERFACE FRAME
FIN FINISH(ED)
FLR FLOOR
FND FOUNDATION
FC FACE OF CONCRETE
FOM FACE OF MASONRY
FS FACE OF STUD
FW FACE OF WALL
FS FINISH SURFACE
FT FOOT
FTD FOOTING
GA GAUGE
GEN GENERATOR
GFI GROUND FAULT CIRCUIT INTERRUPTER
GLB GLUE LAMINATED BEAM
GLV GALVANIZED
GPS GLOBAL POSITIONING SYSTEM
GND GROUND
GSM GLOBAL SYSTEM FOR MOBILE
HOG HOT DIPPED GALVANIZED
HOR HEADER
HVR HANGER
HVAC HEAT/VENTILATION/AIR CONDITIONING
HT HEIGHT
IGR INTERIOR GROUND ROD

IN INCH
INT INTERIOR
LB(S) POUND(S)
LF LINEAR FEET
LTE LONG TERM EVOLUTION
MAS MASONRY
MAX MAXIMUM
MB MACHINE BOLT
MECH MECHANICAL
MFR MANUFACTURER
MGB MASTER GROUND BAR
MIN MINIMUM
MISC MISCELLANEOUS
MTL METAL
MTS MANUAL TRANSFER SWITCH
MW MICROWAVE
NEC NATIONAL ELECTRIC CODE
NM NEWTON METERS
NO. NUMBER
NUMBER
NTS NOT TO SCALE
OC ON-CENTER
OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OPND OPENING
P/C PRECAST CONCRETE
PCS PERSONAL COMMUNICATION SERVICES
PCU PRIMARY CONTROL UNIT
PRC PRIMARY RADIO CABINET
PP POLARIZING PRESERVING
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PT PRESSURE TREATED
PWR POWER CABINET
QTY QUANTITY
RAD RADIUS
RECT RECTIFIER
REF REFERENCE
REIN REINFORCEMENT
REQ'D REQUIRED
RET REMOTE ELECTRIC TLY
RF RADIO FREQUENCY
RAC RIGID METALLIC CONDUIT
RSH REMOTE RADIO HEAD
RSU REMOTE RADIO UNIT
RWY RAILROAD
SCH SCHEDULE
SHT SHEET
SIAD SMART INTEGRATED ACCESS DEVICE
SM SIMILAR
SPEC SPECIFICATION
SQ SQUARE
SS STAINLESS STEEL
STD STANDARD
STL STEEL
TEMP TEMPORARY
THK THICKNESS
TMA TOWER MOUNTED AMPLIFIER
TN TIE NAIL
TOA TOP OF ANTENNA
TOC TOP OF CURB
TOF TOP OF FOUNDATION
TOP TOP OF PLATE (PARAPET)
TOS TOP OF STEEL
TOW TOP OF WALL
TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP TYPICAL
UG UNDERGROUND
UL UNDERWRITERS LABORATORY
UNL UNLESS NOTED OTHERWISE
UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VF VERIFIED IN FIELD
W WIDE
W/ WITH
WD WOOD
WP WEATHERPROOF
WT WEIGHT

ABBREVIATIONS

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

THE
CBR
GROUP
2840 HOWE ROAD, SUITE E
MARTINEZ, CA 94553
www.TheCBRGroup.com



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NK

RTDS REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	04/13/2023	REV CPT'S ISSUED FOR REVIEW
B	07/17/2023	100% CONSTRUCTION CHANGES
C	04/13/2024	CONSTRUCTION DESIGN CHANGE
D	04/26/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION

SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
LEGEND AND
ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED - NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" - DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ON-SITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER: DISH Wireless L.L.C.
TOWER OWNER: TOWER OWNER

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



3701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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NK _____

RFDS REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS	
REV	DATE DESCRIPTION
A	04/13/2023 NEW CTS BUILD FOR REVIEW
B	07/17/2023 TOWER CONSTRUCTION CHANGES
C	07/17/2023 CONSTRUCTION DESIGN OWNER
D	08/09/2023 PLAN CHECK COMMENT

A&E PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE FOUNDATIONS AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'_c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (F_y) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER 40 ksi
#5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRIOR TO THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#8 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MCC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90° AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (I.E. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. 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 BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



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DRAWN BY: CHECKED BY: APPROVED BY:

NK

RFDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS	
REV	DATE DESCRIPTION
A	04/12/2023 BOX GUY WELDED FOR MOUNT
B	07/17/2023 100% CONSTRUCTION DRAWING
C	08/15/2024 CONSTRUCTION DESIGN CHANGE
D	08/16/2024 PLAN CHECK COMMENTS

A/E PROJECT NUMBER

SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION

SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. 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.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



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NK

RFDS REV # 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	05/13/2023	ISSUE COPY REVIEW FOR REVIEW
B	07/17/2023	100% CONSTRUCTION DOCUMENTS
C	05/12/2024	CONSTRUCTION DESIGN CHANGE
D	05/09/2024	PLAN CHECK COMMENTS

A&E PROJECT NUMBER

SFSFO00369B

DISH Wireless LLC
PROJECT INFORMATION

SFSFO00369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4



5701 SOUTH SANTA FE DRIVE
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NK

RFDS REV #: 3 04/05/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	05/12/2022	DISC 02'S ISSUED FOR REVIEW
B	07/17/2022	100% CONSTRUCTION DRAWING
C	05/12/2024	CONSTRUCTION DESIGN CHANGE
D	05/05/2024	PLAN CHECK COMMENTS

A/E PROJECT NUMBER
SFSF000369B

DISH Wireless L.L.C.
PROJECT INFORMATION
SFSF000369B
1340 VIRGINIA ST
VALLEJO, CA 94590

SHEET TITLE
RF SIGNAGE

SHEET NUMBER

GN-5

INFORMATION

This is an access point to an
area with transmitting antennas.

Obey all signs and barriers beyond this point.
Call the DISH Wireless L.L.C. NOC at 1-833-347-4602

Site ID: _____



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

NOTICE



Transmitting Antenna(s)

Radio frequency fields beyond this point MAY
EXCEED the FCC Occupational exposure limit.

Obey all posted signs and site guidelines for
working in radio frequency environments.

Call the DISH Wireless L.L.C. NOC at 1-833-347-4602
prior to working beyond this point.

Site ID: _____



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

CAUTION



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Site ID: _____



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WARNING



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RF SIGNAGE