



# Staff Report

**To:** Planning Commission  
**From:** Lisa Tylenda, Planner  
**Date:** June 7, 2018  
**Subject:** AT&T Existing Telecommunication Facility

---

## **Background:**

- Current Zoning: C-2 (Commercial General)
- Current Land Use: Operating Movie Theater
- Size of Property: 173,762 sqft./3.96 acres
- Parcel Legal Description: PAR 2 OF LLA ALSO BEING POR LOTS 12 & 13 DAVIS SUB
- Site Design: Please see attachments
- Environmental Clearance: This project is Categorically Exempt per CEQA Section No. 15301 and Section No. 15302.

## **Project Description:**

The proposed project is to preform work on an existing wireless facility in order to upgrade the equipment including FirstNet for nationwide emergency services. Scope includes replacing (6) existing antennas with (6) new antennas and replacing (6) existing remote radios with (6) new remote radios and new card into existing racks inside ground shelter. Existing emergency generator is to remain. No ground disturbance or expansion of rooftop or ground space required nor planned. Modifications to existing Wireless Telecommunication Facilities trigger the need for obtaining a Conditional Use Permit per City of Imperial Ordinance number: 646.

## **Evaluation**

The Zoning Ordinance provides flexibility in the regulation of uses to ensure that unusual characteristics of certain uses are properly addressed in furtherance of the Zoning Ordinance.

Section 24.19.340 of the City of Imperial Zoning Ordinance requires that the Commission make specific findings be made when reviewing a CUP. The required findings are listed below.

1. That the proposed location, size, design, and operating characteristics of the proposed use is in accord with the Title and Purpose of this Ordinance, the Purpose of the zone in which the site is located, the Imperial General Plan, and the development policies and standard of the City.

*The subject site is located within a C-2 Commercial General. The purpose of the C-2 zone is intended as an area for the location of highway oriented retail service and wholesale commercial activities. The proposed cell-phone tower does not necessarily provide retail/commercial for the surrounding residential uses, but it does not interfere or conflict the purposes of the zone.*

2. That the location, size, design, and operating characteristics of the proposed use will be compatible with and will not adversely affect or be materially detrimental to adjacent uses, residents, buildings, structures, or natural resources with consideration given to those items listed in Section 24.19.340.B of the Imperial Zoning Ordinance.

*Commercial uses are located to the west, east, north and south of the property.*

3. That the proposed location, size, design, and operating characteristics of the proposed use and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare, or materially injurious to properties or improvements in the vicinity.

*The project is very limited in nature, and as such, will not be detrimental to the public health, safety, or welfare.*

4. That the proposed Conditional Use will comply with each of the applicable provisions of the Zoning Ordinance.

*The use will comply with the zoning ordinance if the Conditional Use Permit is obtained.*

**Attachments:**

- **Location Map**
- **Cell Site photo**
- **Building Specifications/Details**
- **Radio Frequency Report for Cell Site**
- **Letter of Authorization**
- **Reso. 2018-09**

## LETTER OF AUTHORIZATION

### APPLICATION FOR ZONING/USE PERMIT

I, *Dian Fran*, Owner of the below-described property, do hereby authorize DePratti Inc., authorized agent to AT&T Mobility, to submit any building or use permit applications necessary to insure AT&T's continued ability to use the property for the purpose of constructing, operating and maintaining an existing communications facility. I understand that such application may be denied, modified or approved with conditions and that such conditions or modifications must be complied with prior to issuance of building permits.

Site Name: IC0732 Costco El Centro

Property Address: 2335 Highway 86, Imperial, CA 92251

Assessor's Parcel Number: 064-433-014

Signature of Property Owner: Cal Gran Entertainment Properties LLC

By: *Dian Fran*

Title: *General manager*

Date: *02-03-18*

Phone/Email: \_\_\_\_\_

**CONDITIONS OF APPROVAL  
FOR  
CONDITIONAL USE PERMIT –CUP18-04**

**Imperial Movie Theater/ AT& T Wireless Communication Facility  
2335 HWY 86  
IMPERIAL, CA 92251**

1. The provisions of this Conditional Use Permit are to run with the land/project and shall bind the current and future owner(s) successor(s) in interest, assignee(s) and/or transferor(s) of said project. This Conditional Use is only valid for 2335 HWY 86; Imperial, CA.
2. The project is approved as shown on the "Conceptual Site Plan" submitted. Minor Changes to the plans may be allowed subject to the approval of the Community Development Director if found to be in substance and conformance to this development plan.
3. Conditional Use Permit # CUP 18-04 is valid for the modifications at the existing Telecommunications site.
4. The Projects Radio Frequency report must be provided before any construction may begin. The RF report must be found to be within acceptable ranges according to the FCC guidelines.
5. The Noise Level report must be provided before any construction may begin. The noise levels must be found to be within acceptable limits according to the City of Imperials adopted standards specified in ordinance no. 646.
6. The cellular tower shall be adequately camouflaged.
7. The Community Development Director may approve minor alterations to the design, including height, color and camouflage technique.
8. The improvements associated with the communication facility, including equipment shelters, antennae, and fencing shall be properly maintained at all times and all outdoor storage areas and appurtenant structures shall be screened from public view.
9. The telecommunications cell site shall be designed to support/collocate antennae for additional carriers and shall be made available for lease to other carriers.
10. The telecommunications site shall install any markings and lighting required by FAR Part 77 or imposed by the Imperial County Airport Land Use Commission in accordance with the adopted Airport Land Use Compatibility Plan.
11. The telecommunications facility shall address any needs or install any equipment requested by the Imperial Irrigation District that relates directly to the cellular tower project.
12. A frequency evaluation shall be submitted to the Community Development Department prior to the establishment of service to demonstrate the frequencies will not interfere with the City's emergency broadcast services. The Developer/Applicant shall provide radio coverage and documentation to the Fire Department indicating that this facility will not interfere with public safety amplification signals.

13. All Building, Engineering, Planning, and city permitting fees regarding this project at 2335 HWY 86; Imperial, CA 92251 will be paid by the applicant.
14. The applicant shall assume full responsibility for resolving television interference, if any is caused by the operation of the proposed facility. The applicant shall take corrective action within 30 days of receipt by the Planning Department of any written television interference complaint.
15. The Developer/ Applicant shall comply with all local, State and Federal laws, regulations, rules, ordinances, and standards as they pertain to this project, whether specified herein or not. Where conflicts occur, the most stringent shall apply.
16. The Developer/Applicant shall pay all applicable impact and capacity fees.
17. The Conditional Use Permit shall not constitute the waiver of any requirement of the City's Ordinances or regulations, except where a condition set forth herein specifically provides for a waiver.
18. The Applicant shall agree to defend, indemnify and hold harmless the City of Imperial and its agents, including consultants, officers and employees from any claim, action or proceeding against the City or its agents, including consultants, officers and employees to attack, set aside, void, or annul the approval of the Conditional Use Permit. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the Property Owner/ Applicant arising out of or in connection with the approval of the Conditional Use Permit and Variance Permit, including any claim for private attorney general fees claimed by, or awarded to any party from the City.
19. All conditions of approval for this Conditional Use Permit shall be reprinted and included as a plan sheet(s) with the building permit plan check sets submitted for review and approval. These conditions of approval shall be on, at all times, all grading, landscaping, and construction plans kept on the project site. It is the responsibility of the applicant to ensure that the project contractor is aware of, and abides by, all conditions of approval. Prior approval from the Community Development Department must be received before any changes are constituted in site design, grading, building design, building colors or materials, landscape material, etc.
20. The provisions of the permit are to run with the land/ project and shall bind the current and future owner(s) successor(s) in interest, assignee(s) and/or transferor(s) of said project.
21. All obsolete or unused communication facilities shall be removed by the applicant within six months after the use of that facility has ceased or the facility has been abandoned. The applicant shall notify the Community Development department at the time of the abandonment, and all disturbance related to the communication facility shall be restored to pre-project condition.
22. If the Community Development Department finds and determines that the Permittee or successor- in-interest has not complied or cannot comply with the terms and conditions of the Conditional Use Permit or the Community Development Department determines that the permitted activities constitute a nuisance, the City shall provide Permittee with notice and opportunity to comply with the enforcement or abatement order. If after receipt of the order (1) Permittee fails to comply, and/ or (2) Permittee cannot comply with the conditions set forth in the CUP then the matter shall be referred to the Planning Commission for permit modification, suspension, or termination, or to the appropriate enforcement authority.

23. As between the City and the Permittee, any violation of this permit may be a "nuisance per se". The City may enforce the terms and conditions of this permit in accordance with its Codified Ordinances and/or State law. The provisions of this paragraph shall not apply to any claim of nuisance per se brought by a third party.
24. In the event the facility is operated or maintained to constitute a public nuisance consistent with Municipal Code Chapter 14 Abatement of Nuisances, then abatement shall follow all necessary procedures set forth in Chapter 14.
25. In the event a heritage resource or other item of historical or archaeological interest is discovered during grading and construction activities, the project proponent shall ensure that all such activities cease within 50 feet of the discovery until an archaeologist can examine the find in place and determine its significance. If the find is determined to be significant and authenticated, the archaeologist shall determine the proper method(s) for handling the resource or item. Grading and construction activities may resume after the appropriate measures are taken or the site is determined not to be of significance.
26. In the event of the discovery of human remains, all work is to stop, and the County coroner shall be immediately notified pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.98 of the Public Resources Code. If the remains are determined to be Native American, the Coroner must contact the Native American Heritage Commission within 24 hours. The treatment and disposition of human remains shall be completed consistent with guidelines of the Native American Heritage Commission.

## RESOLUTION PC2018-09

### A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF IMPERIAL APPROVING A CONDITIONAL USE PERMIT CUP(18-04) TO ALLOW FOR MODIFICATIONS AT AN EXISTING TELECOMMUNICATION FACILITY AT 2335 HWY 86; IMPERIAL, CA 92251

#### (IMPERIAL MOVIE THEATER- AT&T CELL SITE)

**WHEREAS**, AT & T representative Tim Henion submitted a Conditional Use Permit application to allow for the modifications of an existing telecommunications facility at 2335 HWY 86; Imperial, CA 92251; and

**WHEREAS**, a duly notified public hearing was held by the Planning Commission on June 8, 2018; and

**WHEREAS**, upon hearing and considering all testimony and arguments, analyzing the information submitted by staff and considering any written comment received, the Planning Commission considered all facts relating to the request for a Conditional Use Permit.

**NOW THEREFORE, BE IT RESOLVED** by the Planning Commission of the City of Imperial as follows:

- A) That the foregoing recitations are true and correct; and
- B) The project has been reviewed in accordance with the requirements set forth by the City of Imperial for implementation of the California Environmental Quality Act; and
- C) There are no sensitive resources located within the area of the project or adjacent to the area of the project so as to be significantly impacted by the project; and
- D) That based on the evidence presented at the public hearing, the Planning Commission hereby determines that the project is Categorical Exempt under Section 15303 of the California Environmental Quality Act; and
- E) That the operation of a telecommunications facility is consistent with those uses allowed or conditionally allowed in the C-2 General Commercial Zone.
- F) That based on the evidence presented at the public hearing, the Planning Commission hereby **APPROVES** Conditional Use Permit # CUP (18-04) (Imperial Movie Theater/AT&T Cell Site) for modifications on the existing cell site, subject to the conditions of approval outlined in Exhibit A and based on the following findings:
  - 1. That the proposed location, size, design, and operating characteristics of the proposed use is in accord with the Title and Purpose of this Ordinance, the Purpose of the zone in which the site is located, the Imperial General Plan, and the development policies and standard of the City.
  - 2. That the location, size, design, and operating characteristics of the proposed use will be compatible with and will not adversely affect or be materially detrimental to

adjacent uses, residents, buildings, structures, or natural resources with consideration given to those items listed in Section 24.19.340.B of the Imperial Zoning Ordinance.

3. That the proposed location, size, design, and operating characteristics of the proposed use and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare, or materially injurious to properties or improvements in the vicinity.
4. That the proposed Conditional Use will comply with each of the applicable provisions of the Zoning Ordinance, except for an approved Variance.

**PASSED, ADOPTED AND APPROVED** by the Planning Commission of the City of Imperial, this 13<sup>th</sup> day of June 2018.

---

Planning Commission Chairman

ATTEST:

---

Planning Secretary



**LEGAL DESCRIPTION**

PART 2 OF LLA ALSO BEING POR LOTS 12 & 13 DAVIS SUB



**FA NUMBER: 10546464 / SITE ID: IC0732**  
**LTE EXTENDED CARRIER (1x XMU)/ LTE 4C (FIRST NET)/ LTE 5C (AWS3)**  
**SITE NAME: COSTCO EL CENTRO**

IMPERIAL COUNTY



**SITE NUMBER: IC0732**  
**FA NUMBER: 10546464**  
**COSTCO EL CENTRO**  
**2335 HIGHWAY 86**  
**IMPERIAL, CA 92251**  
**ROOFTOP**

**SITE INFORMATION**

**PROPERTY OWNER:** CAL GRAN ENTERTAINMENT PROPERTIES, LLC  
 3170 SANTA MARIA WAY  
 SANTA MARIA, CA 93455  
 CONTACT: BOBBY GRAIN JR.  
 PH: (559) 706-7311  
 SITE MANGER: MICHELLE SAMPSON

**APPLICANT:** AT&T MOBILITY  
**ADDRESS:** 5738 PACIFIC CENTER BLVD.  
 SAN DIEGO, CA 92121

**SITE ADDRESS:** 2335 HIGHWAY 86  
 IMPERIAL, CA 92251

**LAT/LONG TYPE:** NAD-83  
**LATITUDE:** 32° 49' 16.11984" N (32.8211444)  
**LONGITUDE:** 115° 34' 15.21012" W (-115.5708917)

**ZONING JURISDICTION:** IMPERIAL COUNTY  
**CURRENT USE:** UNMANNED OUTDOOR TELECOMMUNICATIONS EQUIPMENT  
**ASSESSOR'S PARCEL NO.:** 064-433-014  
**PROPOSED USE:** UNMANNED OUTDOOR TELECOMMUNICATIONS EQUIPMENT  
**STRUCTURE TYPE:** ROOFTOP  
**ZONING CLASSIFICATION:** C-2  
**TYPE OF CONSTRUCTION:** V-B, IIB  
**OCCUPANCY GROUP:** S-1

**DO NOT SCALE DRAWINGS**

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



**PROJECT TEAM**

**CLIENT REPRESENTATIVE:**  
 DEPRATTI, INC.  
 13948 CALLE BUENO GANAR  
 JAMUL, CA 91935  
 CONTACT: CAITLYN KES  
 EMAIL: ckes@deprattinc.com  
 PHONE: (858) 572-9938

**ENGINEER:**  
 M SQUARED WIRELESS  
 1387 CALLE AVANZADO  
 SAN CLEMENTE, CA 92673  
 CONTACT: MICHAEL MONTELLO  
 PHONE: (949) 391-8824  
 www.msquaredwireless.com

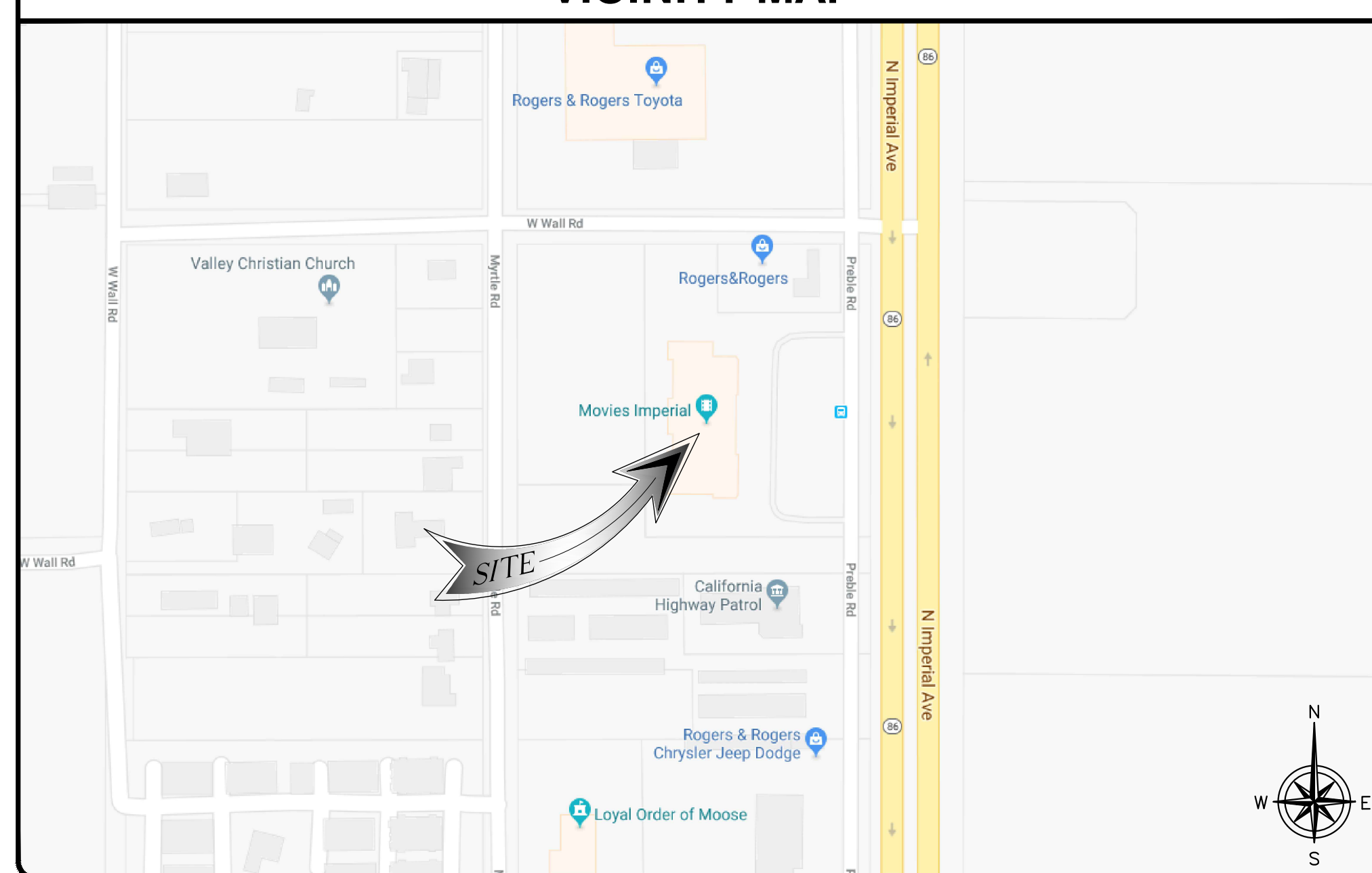
**PLANNING CONTACT:**  
 DEPRATTI, INC.  
 13948 CALLE BUENO GANAR  
 JAMUL, CA 91935  
 CONTACT: CAITLYN KES  
 EMAIL: ckes@deprattinc.com  
 PHONE: (858) 572-9938

**RF ENGINEER:**  
 AT&T  
 5738 PACIFIC CENTER BLVD.  
 SAN DIEGO, CA 92121

**LEASING CONTACT:**  
 DEPRATTI, INC.  
 13948 CALLE BUENO GANAR  
 JAMUL, CA 91935  
 CONTACT: CATHY LIM  
 EMAIL: clim@deprattinc.com  
 PHONE: (858) 688-0955

**CONSTRUCTION MANAGER:**  
 DEPRATTI, INC.  
 13948 CALLE BUENO GANAR  
 JAMUL, CA 91935  
 CONTACT: TIM HENION  
 EMAIL: thenion@deprattinc.com  
 PHONE: (503) 519-8591

**VICINITY MAP**



**DIRECTIONS**

DIRECTIONS FROM SD AT&T OFFICE (5738 PACIFIC CENTER BLVD., SAN DIEGO, CA 92121):  
 HEAD NORTHEAST ON PACIFIC CENTER BLVD TOWARD WIRELESS WAY2. TAKE THE 2ND RIGHT ONTO PACIFIC HEIGHTS BLVD3. TURN RIGHT ONTO MIRA MESA BLVD4. CONTINUE ONTO SORRENTO VALLEY RDS. TAKE THE RAMP ONTO I-805 SOUTH6. TAKE EXIT 17B TO MERGE ONTO I-8 EAST TOWARD EL CENTRO7. TAKE EXIT 114 TO MERGE ONTO S. IMPERIAL AVE TOWARD EL CENTRO. SITE WILL BE ON THE LEFT.

**CODE COMPLIANCE**

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

- CALIFORNIA ADMINISTRATIVE CODE (INCL TITLE 24 & 25)
- 2016 CALIFORNIA BUILDING CODE
- CITY/COUNTY ORDINANCES
- BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA)
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA FIRE CODE
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- LOCAL BUILDING CODE

**SCOPE OF WORK**

AT&T WIRELESS PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- REMOVE (6) EXISTING AT&T RRU @ ANTENNA LEVEL
- REMOVE (3) EXISTING AT&T 8'-0" PANEL ANTENNAS
- INSTALL (3) NEW AT&T 6'-0" PANEL ANTENNAS
- INSTALL (3) NEW AT&T RRU B14 4478 @ ANTENNA LEVEL
- INSTALL (3) NEW AT&T RRU 4426 B66 @ ANTENNA LEVEL
- INSTALL (1) NEW AT&T 6601 BASEBAND UNIT WITHIN EXISTING EQUIPMENT CABINET @ GRADE
- INSTALL (1) NEW AT&T 5216 BASEBAND UNIT WITHIN EXISTING EQUIPMENT CABINET @ GRADE
- INSTALL (2) NEW AT&T XMU03 BASEBAND UNIT WITHIN EXISTING EQUIPMENT CABINET @ GRADE

**CONSTRUCTION DRAWING INDEX**

| T-1  | TITLE SHEET                             |
|------|---|
| GN-1 | GENERAL NOTES                           |
| GN-2 | GENERAL NOTES                           |
| A-1  | OVERALL SITE PLAN                       |
| A-2  | EQUIPMENT LAYOUT PLAN                   |
| A-3  | ANTENNA LAYOUT                          |
| A-4  | ELEVATIONS                              |
| A-5  | ELEVATIONS                              |
| D-1  | DETAILS                                 |
| G-1  | GROUNDING SCHEMATIC & GROUNDING DETAILS |

**APPROVALS**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

AT&T RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 AT&T OPERATIONS: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CONSTRUCTION MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROPERTY OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ZONING: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROJECT MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_

**DRAWING SCALE**

THESE DRAWINGS ARE SCALED TO FULL SIZE AT 22"x34" AND HALF SIZE AT 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

APPLICANT

PLANNING

ENGINEER

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

SHEET TITLE

SHEET NUMBER

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |



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.

TITLE SHEET

T-1

**GENERAL CONSTRUCTION NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
GENERAL CONTRACTOR – GENERAL CONTRACTOR  
SUBCONTRACTOR – CONTRACTOR (CONSTRUCTION)  
OWNER – AT&T
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
- GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL 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 WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH WORK
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE SPACE FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUBCONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
- WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUBCONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO THE BEGINNING CONSTRUCTION.
- SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT/ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, D) TRENCHING & EXCAVATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ARCHITECT/ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNER'S 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.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- SUBCONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF SUBCONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
- ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- NO NOISE, SMOKE, DUST, OR VIBRATIONS WILL RESULT FROM THIS FACILITY. (DISREGARD THIS NOTE IF THIS SITE HAS A GENERATOR)
- NO ADDITIONAL PARKING TO BE PROPOSED. EXISTING ACCESS AND PARKING TO REMAIN, UNLESS NOTED OTHERWISE.
- NO LANDSCAPING IS PROPOSED AT THIS SITE, UNLESS NOTED OTHERWISE.

**ELECTRICAL NOTES:**

- ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.
- ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTING OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:  
C – NATIONAL FIRE CODES  
A. NEC – NATIONAL ELECTRICAL CODE  
B. NEC – NATIONAL ELECTRICAL CODE  
C. NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOC.  
D. OSHA – OCCUPATIONAL SAFETY AND HEALTH ACT  
E. SBC – STANDARD BUILDING CODE
- DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.
- EXISTING SERVICES: CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.
- CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.
- THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.
- CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC.. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.
- MINIMUM WIRE SIZE SHALL BE #12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.
- OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY AT&T.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY 'CONSTRUCTION MANAGER'.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.
- ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.
- PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.
- DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS FOR EXCAVATION, AND BACKFILLING.
- MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE PROPOSED AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEC.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURERS CATALOG INFORMATION OF ANY/ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.
- THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.
- ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED – NO SUBSTITUTIONS.
- RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC MEETING OR EXCEEDING NEMA TC2 – 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS – 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRIT ZINC' OR 'GOLD GALV'.
- SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
- CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, 800 VOLT, COLOR CODED, USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.
- CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
- SERVICE: 240/120V, SINGLE PHASE, 3 WIRE CONNECTION AVAILABLE FROM UTILITY COMPANY. OWNER OR OWNERS AGENT WILL APPLY FOR POWER.
- TELEPHONE SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.
- ELECTRICAL AND TELCO RACEWAYS TO BE BURIED A MINIMUM OF 2' DEPTH.
- CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRICAL" OR "BURIED TELECOMM".
- ALL BOLTS SHALL BE STAINLESS STEEL.

**GROUNDING NOTES:**

- COMPRESSION CONNECTIONS (2), 2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUNDING BAR, ROUTE CONDUCTORS TO BURIED GROUNDING RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
- EG SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "T") WITH 1" HIGH LETTERS.
- ALL HARDWARE 18-8 STAINLESS STEEL, INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8 INCH DIAMETER OR LARGER.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUNDING BAR AND BOLTED ON THE BACK SIDE.
- NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION, AND CONNECTION ORIENTATION, PROVIDE AS REQUIRED.
- WHEN THE SCOPE OF WORK REQUIRES THE ADDITION OF A GROUNDING BAR TO AN EXISTING TOWER, THE SUBCONTRACTOR SHALL OBTAIN APPROVAL FROM THE TOWER OWNER PRIOR TO MOUNTING THE GROUNDING BAR TO THE TOWER.
- ALL ELECTRICAL AND GROUNDING AT THE CELL SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER.



SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |



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.

GENERAL NOTES

GN-1

**SITE WORK & DRAINAGE**

**PART 1 – GENERAL**

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

**1.1 REFERENCES:**

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION—CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

**1.2 INSPECTION AND TESTING:**

- A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE SUBCONTRACTOR.
- B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

**1.3 SITE MAINTENANCE AND PROTECTION:**

- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

- PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

**PART 2 – PRODUCTS**

- 2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2 NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).
- 2.6 COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM TO ASTM D2940.
- 2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- 2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED EQUAL.
- 2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES. 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

**PART 2 – EXECUTION**

**3.1 GENERAL:**

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.

- 1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
- 2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
- 3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.
- D. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- E. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- F. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

**3.2 BACKFILL:**

- A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.
- 1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
- 2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
- 3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.
- B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

**3.3 TRENCH EXCAVATION:**

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.

- B. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

**3.4 TRENCH BACKFILL:**

- A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.
- G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

**3.5 AGGREGATE ACCESS ROAD:**

- A. CLEAR, GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6 INCHES AND PROOF-ROLL. ALL HOLES, RUTS, SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.
- B. THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 1557.
- C. AFTER PREPARATION OF THE SUBGRADE IS COMPLETE THE GEOTEXTILE FABRIC (MIRAFI 500X) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY. THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGLE OPERATION. ROLLING OUT AS SMOOTHLY AS POSSIBLE.
- 1. OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.
- 2. TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL SHALL OVERLAP IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.
- 3. ALL OVERLAPS SHALL BE PINNED WITH STAPLES OR NAILS A MINIMUM OF 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET.
- D. THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT MORE THAN 4 INCH (COMPACTED) THICKNESS. AGGREGATE TO BE PLACED ON GEOTEXTILE FABRIC SHALL BE END-DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT, EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE, BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.
- E. THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC-TIRED ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHEEL OR TANDEM ROLLER.

**3.6 FINISH GRADING:**

- A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
- C. ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2" - 3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.
- D. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

**3.7 ASPHALT PAVING ROAD:**

- A. DIVISION 600 – KDOT FLEXIBLE PAVEMENT. (UPDATE PER LOCAL DOT)
- B. SECTION 403 – MODOOT ASPHALT CONCRETE PAVEMENT.

**ENVIRONMENTAL NOTES**

- 1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.
- 2. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS AND SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.
- 3. CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENT/SILT CONTROL FENCING AND PROTECTIVE MEASURES WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.
- 4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.
- 6. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.
- 7. SEEDING AND MULCHING AND/OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.
- 8. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.
- 9. RIP RAP OF SIZES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES

**STRUCTURAL CONCRETE NOTES**

- 1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301-10, ACI 318-08 AND THE SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- 2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH  $f_c' = 2,500$  PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
- 3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNLESS NOTED OTHERWISE. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST EARTH.....3 IN.

**CONCRETE EXPOSED TO EARTH OR WEATHER:**

- #6 AND LARGER.....2 IN.
- #5 AND SMALLER & WWF .....1-1/2 IN.

**CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:**

- SLAB AND WALL .....3/4 IN.
- BEAMS AND COLUMNS.....1-1/2 IN.

- 5. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE U.N.O. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- 6. HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLT, DWEL OR ROD AND SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. LOCATE AND AVOID CUTTING EXISTING REBAR WHEN DRILLING HOLES IN ELEVATED CONCRETE SLABS.
- 7. USE AND INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER ICBO & MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURES.

**STRUCTURAL STEEL NOTES**

- 1. ALL STEEL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION. STEEL SECTIONS SHALL BE IN ACCORDANCE WITH ASTM AS INDICATED BELOW:  
W-SHAPES: ASTM A992, 50 KSI  
ANGLES, BARS CHANNELS: ASTM A36, 36 KSI  
HSS SECTIONS: ASTM 500, 46 KSI  
PIPE SECTIONS: ASTM A53-E, 35 KSI
- 2. ALL EXTERIOR EXPOSED STEEL AND HARDWARE SHALL BE HOT DIPPED GALVANIZED.
- 3. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC.WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
- 4. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE 3/4"Ø CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- 5. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
- 6. FIELD MODIFICATIONS ARE TO BE COATED WITH ZINC ENRICHED PAINT.

APPLICANT



PLANNING



13948 CALLE BUENO GANAR  
JAMUL, CA 91935

ENGINEER



1387 CALLE AVANZADO  
SAN CLEMENTE CA 92673 (949) 391-8824

SITE INFORMATION

SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP

DESIGN RECORD

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |

PROFESSIONAL STAMP



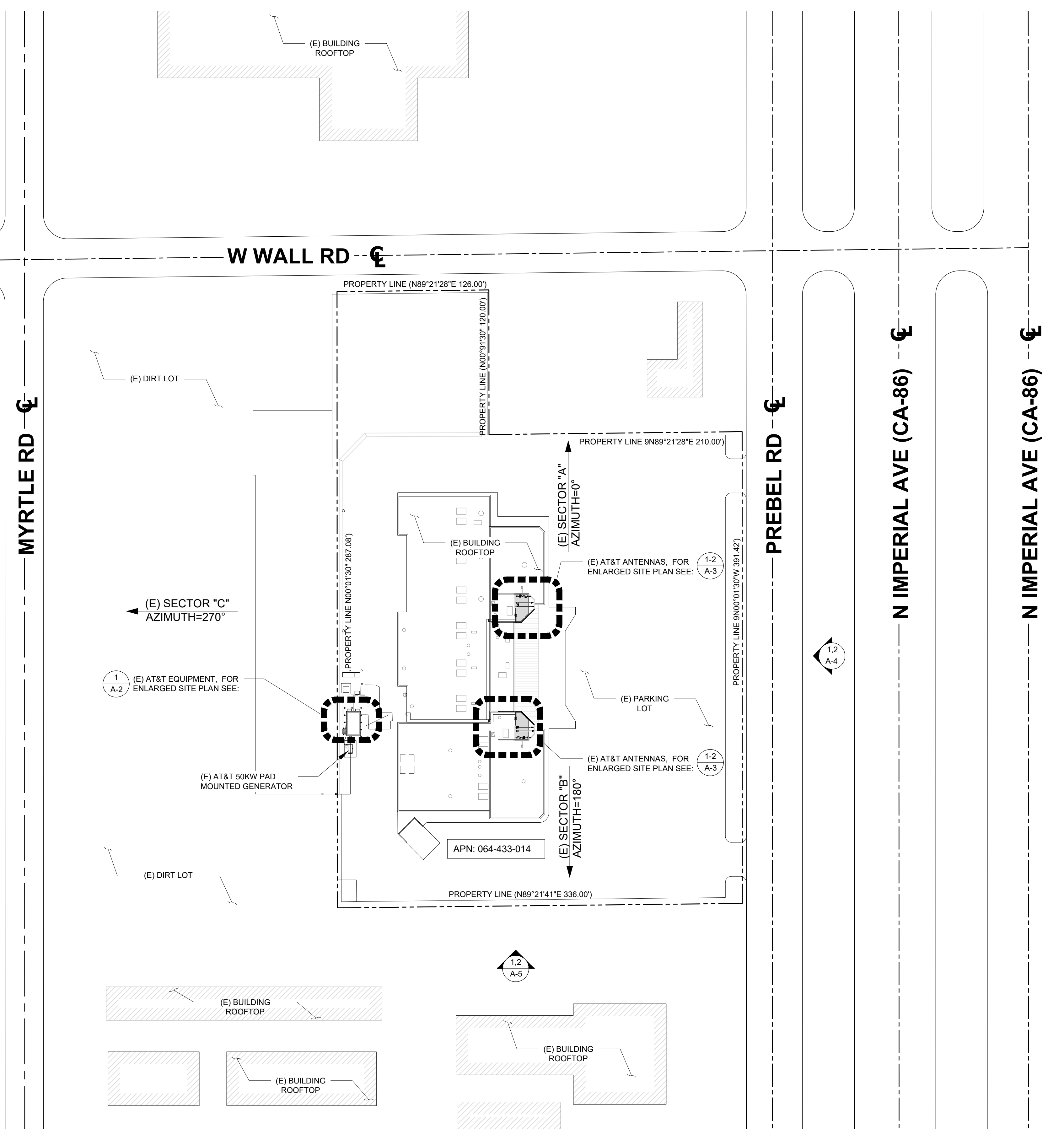
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2



- NOTES:**
1. THE WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.
  2. NO EXISTING PARKING STALLS ARE BEING ADDED OR REMOVED AS PART OF THE PROPOSED INSTALLATION.
  3. THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, SETBACKS, AND EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION.

**DISCLAIMER:**  
 THIS SET OF DRAWINGS WAS PREPARED UTILIZING INFORMATION OBTAINED FROM PUBLIC DOCUMENTS MADE AVAILABLE ON THE JURISDICTIONS WEBSITE. M SQUARED WIRELESS CANNOT GUARANTEE THE ACCURACY OF THE DATA AND INFORMATION DEPICTED ON THE JURISDICTIONS WEBPAGE AND HEREBY EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR THE TRUTH, VALIDITY, INVALIDITY, ACCURACY, INACCURACY OF ANY SAID DATA AND INFORMATION. THE PARCEL LINES ON MAPS ARE FOR ILLUSTRATION PURPOSES ONLY AND ARE NOT INTENDED TO BE USED AS A SURVEY PRODUCT. USER ACCEPTS RESPONSIBILITY FOR THE UNAUTHORIZED USE OR TRANSMISSION OF ANY SUCH DATA OR INFORMATION IN ITS ACTUAL OR ALTERED FORM.

| LEGEND |                                |
|--------|--------------------------------|
|        | PROPERTY LINE - SUBJECT PARCEL |
|        | EXISTING SETBACK LINE          |
|        | EXISTING FENCE LINE            |
|        | EXISTING ROAD                  |
|        | EXISTING CENTER LINE           |
|        | EXISTING BUILDING              |



SITE NUMBER: IC0732  
 FA NUMBER: 10546464  
 COSTCO EL CENTRO  
 2335 HIGHWAY 86  
 IMPERIAL, CA 92251  
 IMPERIAL COUNTY  
 ROOFTOP

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |



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.

OVERALL SITE PLAN

A-1

**OVERALL SITE PLAN**

24"x36" SCALE: 1" = 50'-0"  
 11"x17" SCALE: 1" = 100'-0"  
 50' 25' 0' 50'



|              | EXISTING OPTIMAL ANTENNA AND TRANSMISSION CABLES REQUIREMENT (VERIFY WITH CURRENT RFDS) |                     |                                |          |            |                   | EXISTING REMOTE RADIO UNITS, TOWER MOUNTED AMPLIFIERS AND ANTENNA FILTERS (VERIFY WITH CURRENT RFDS) |                               |            |                              |                   |
|--------------|---|---------------------|--------------------------------|----------|------------|-------------------|--|-------------------------------|------------|------------------------------|-------------------|
|              | ANTENNA   | EXISTING TECHNOLOGY | ANTENNA MODEL                  |          | RAD CENTER | TRANSMISSION LINE |  | EXISTING RRUS MODEL           | RRUS COUNT | EXISTING TMA/ ANTENNA FILTER | TMA/ FILTER COUNT |
|              |   |                     | EXISTING                       | EXISTING |            | LENGTH            | PART NUMBER  |                               |            |                              |                   |
| ALPHA SECTOR | A1  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 0°       | 55'-6"     | ±70'              | (E) FIBER  | (E) RRUS 11, (E) RRUS 11 + A2 | 2          | -                            | -                 |
|              | A2  | UMTS                | COMMSCOPE SBNHH-1D65B (6'-0")  | 0°       | 55'-6"     | ±70'              | (E) MAIN COAX  | *(E) RRUS                     | 1          | -                            | -                 |
|              | A3  | UMTS                | *COMMSCOPE SBNHH-1D65B (6'-0") | 0°       | 55'-6"     | ±70'              | (E) FIBER  | *(E) RRUS                     | 1          | -                            | -                 |
|              | A4  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 0°       | 55'-6"     | ±70'              | (E) MAIN COAX  | (E) RRUS 32                   | 1          | -                            | -                 |
| BETA SECTOR  | B1  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 180°     | 55'-6"     | ±70'              | (E) FIBER  | (E) RRUS 11, (E) RRUS 11 + A2 | 2          | -                            | -                 |
|              | B2  | UMTS                | COMMSCOPE SBNHH-1D65B (6'-0")  | 180°     | 55'-6"     | ±70'              | (E) MAIN COAX  | *(E) RRUS                     | 1          | -                            | -                 |
|              | B3  | UMTS                | *COMMSCOPE SBNHH-1D65B (6'-0") | 180°     | 55'-6"     | ±70'              | (E) FIBER  | *(E) RRUS                     | 1          | -                            | -                 |
|              | B4  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 180°     | 55'-6"     | ±70'              | (E) MAIN COAX  | (E) RRUS 32                   | 1          | -                            | -                 |
| GAMMA SECTOR | C1  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 270°     | 55'-6"     | ±70'              | (E) FIBER  | (E) RRUS 11, (E) RRUS 11 + A2 | 2          | -                            | -                 |
|              | C2  | UMTS                | COMMSCOPE SBNHH-1D65B (6'-0")  | 270°     | 55'-6"     | ±70'              | (E) MAIN COAX  | *(E) RRUS                     | 1          | -                            | -                 |
|              | C3  | UMTS                | *COMMSCOPE SBNHH-1D65B (6'-0") | 270°     | 55'-6"     | ±70'              | (E) FIBER  | *(E) RRUS                     | 1          | -                            | -                 |
|              | C4  | LTE                 | COMMSCOPE SBNHH-1D65B (6'-0")  | 270°     | 55'-6"     | ±70'              | (E) MAIN COAX  | (E) RRUS 32                   | 1          | -                            | -                 |
|              |   |                     |                                |          |            | TOTAL             |  | 15                            |            | 0                            |                   |

\*DENOTES ANTENNA TO BE REMOVED

\*DENOTES RRUS TO BE REMOVED

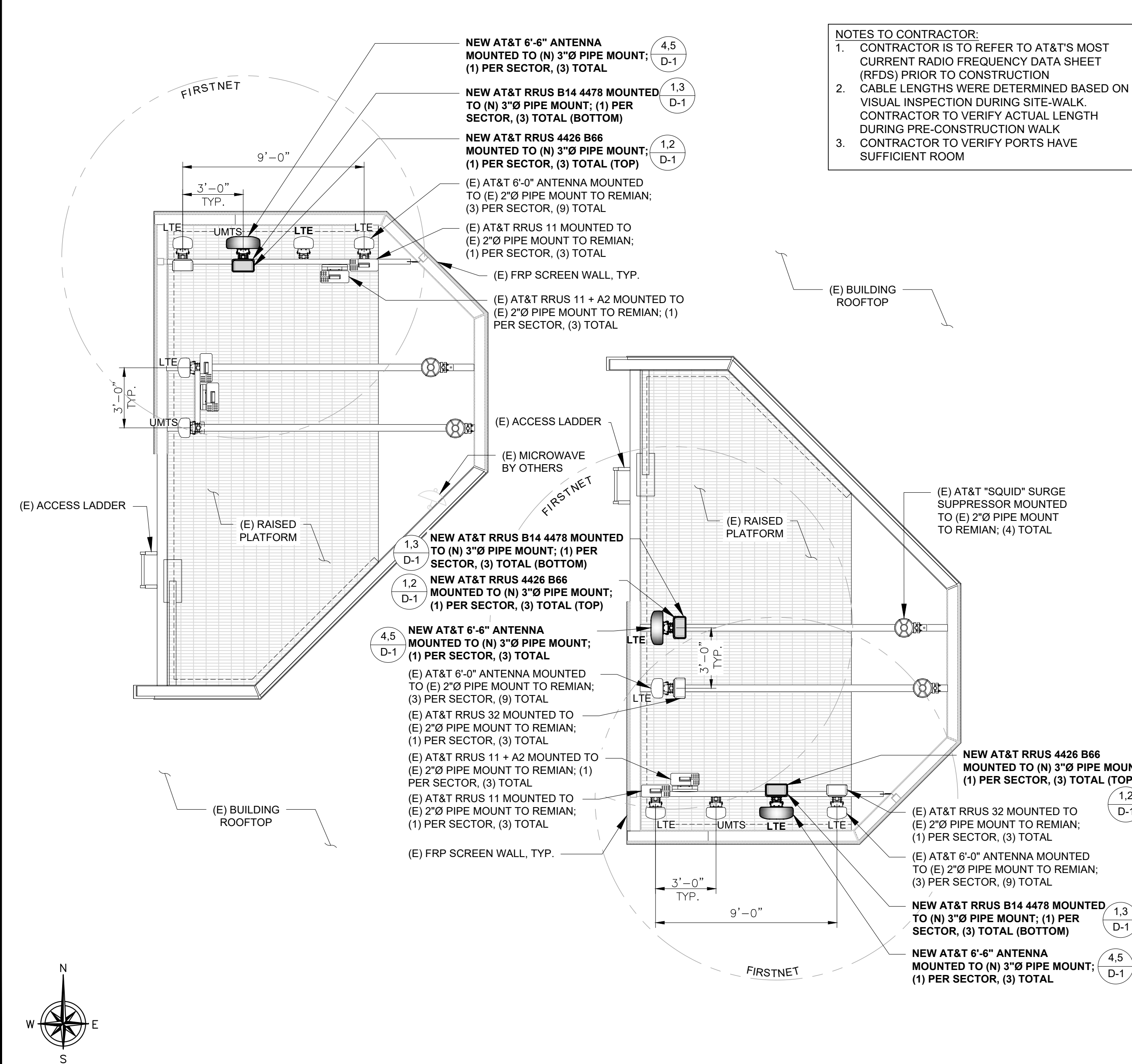
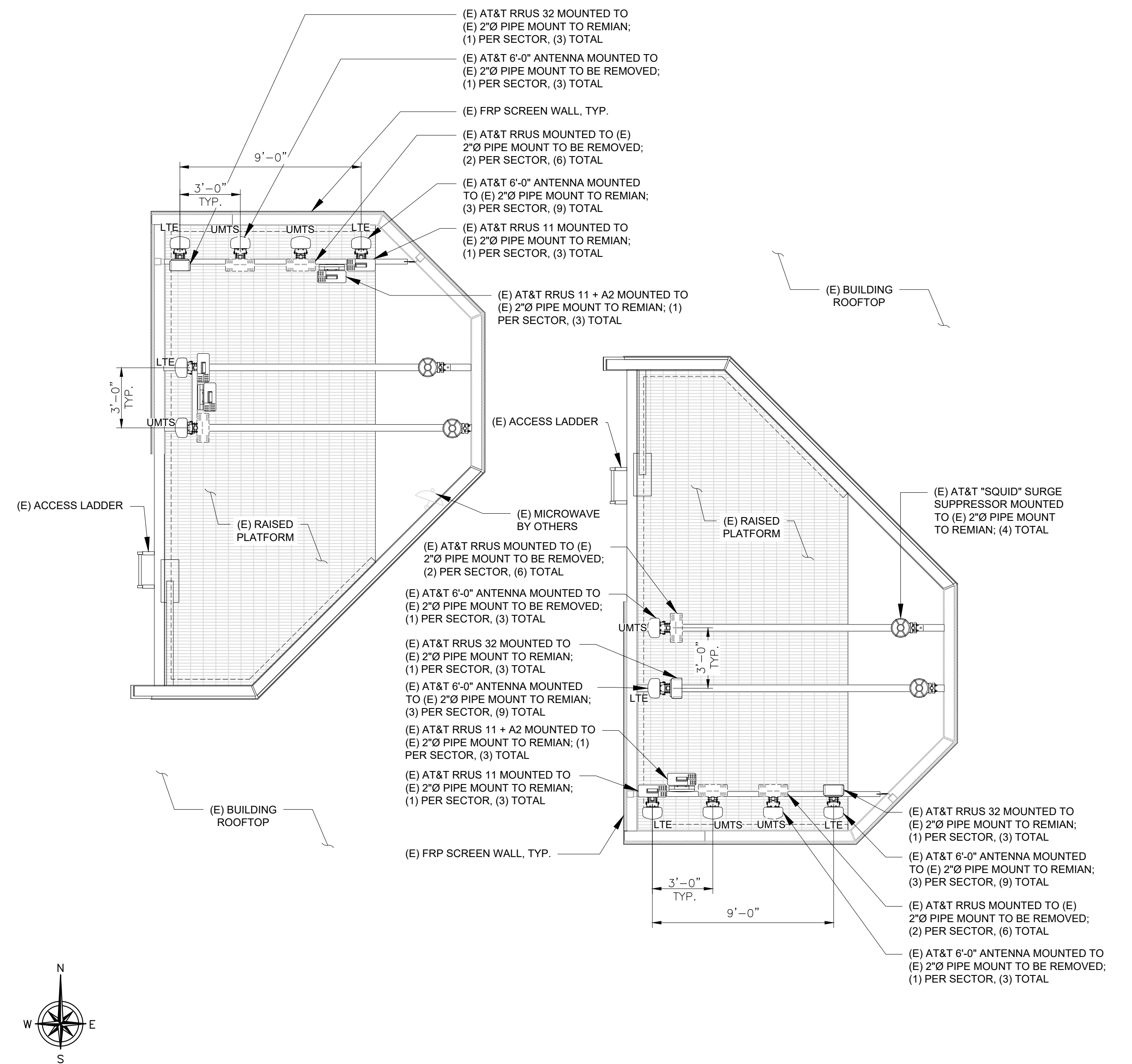
TOTAL

TOTAL

|              | NEW/FINAL OPTIMAL ANTENNA AND TRANSMISSION CABLES REQUIREMENT (VERIFY WITH CURRENT RFDS) |                |                               |                            |            |                   | NEW/FINAL REMOTE RADIO UNITS, TOWER MOUNTED AMPLIFIERS AND ANTENNA FILTERS (VERIFY WITH CURRENT RFDS) |                      |              |                                      |                   |   |   |
|--------------|--|----------------|-------------------------------|----------------------------|------------|-------------------|---|----------------------|--------------|--------------------------------------|-------------------|---|---|
|              | ANTENNA  | NEW TECHNOLOGY | ANTENNA MODEL                 |                            | RAD CENTER | TRANSMISSION LINE |   | NEW/FINAL RRUS MODEL | RRUS COUNT   | NEW/FINAL TMA & ANTENNA FILTER       | TMA/ FILTER COUNT |   |   |
|              |  |                | EXISTING                      | NEW                        |            | LENGTH            | PART NUMBER   |                      |              |                                      |                   |   |   |
| ALPHA SECTOR | A1   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 0°         | -                 | 55'-6"  | ±70'                 | (E) FIBER    | (E) RRUS 11, (E) RRUS 11 + A2        | 2                 | - | - |
|              | A2   | UMTS           | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 0°         | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | -                                    | -                 | - | - |
|              | A3   | LTE            | -                             | KATHREIN 800-10991 (6'-6") | -          | 0°                | 55'-6"  | ±70'                 | (E) FIBER    | (N) RRUS B14 4478, (N) RRUS 4426 B66 | 2                 | - | - |
|              | A4   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 0°         | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | (E) RRUS 32                          | 1                 | - | - |
| BETA SECTOR  | B1   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 180°       | -                 | 55'-6"  | ±70'                 | (E) FIBER    | (E) RRUS 11, (E) RRUS 11 + A2        | 2                 | - | - |
|              | B2   | UMTS           | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 180°       | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | -                                    | -                 | - | - |
|              | B3   | LTE            | -                             | KATHREIN 800-10991 (6'-6") | -          | 180°              | 55'-6"  | ±70'                 | (E) FIBER    | (N) RRUS B14 4478, (N) RRUS 4426 B66 | 2                 | - | - |
|              | B4   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 180°       | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | (E) RRUS 32                          | 1                 | - | - |
| GAMMA SECTOR | C1   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 270°       | -                 | 55'-6"  | ±70'                 | (E) FIBER    | (E) RRUS 11, (E) RRUS 11 + A2        | 2                 | - | - |
|              | C2   | UMTS           | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 270°       | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | -                                    | -                 | - | - |
|              | C3   | LTE            | -                             | KATHREIN 800-10991 (6'-6") | -          | 270°              | 55'-6"  | ±70'                 | (E) FIBER    | (N) RRUS B14 4478, (N) RRUS 4426 B66 | 2                 | - | - |
|              | C4   | LTE            | COMMSCOPE SBNHH-1D65B (6'-0") | -                          | 270°       | -                 | 55'-6"  | ±70'                 | (E) MAN COAX | (E) RRUS 32                          | 1                 | - | - |
|              |  |                |                               |                            |            | TOTAL             |   | 15                   |              | 0                                    |                   |   |   |

TOTAL

TOTAL



NOTES TO CONTRACTOR:

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION
- CABLE LENGTHS WERE DETERMINED BASED ON VISUAL INSPECTION DURING SITE-WALK. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK
- CONTRACTOR TO VERIFY PORTS HAVE SUFFICIENT ROOM

EXISTING ANTENNA LAYOUT 24"x36" SCALE: 1/4" = 1'-0" 11"x17" SCALE: 1/8" = 1'-0"

NEW ANTENNA LAYOUT 24"x36" SCALE: 1/4" = 1'-0" 11"x17" SCALE: 1/8" = 1'-0"



SITE NUMBER: IC0732  
 FA NUMBER: 10546464  
 COSTCO EL CENTRO  
 2335 HIGHWAY 86  
 IMPERIAL, CA 92251  
 IMPERIAL COUNTY  
 ROOFTOP

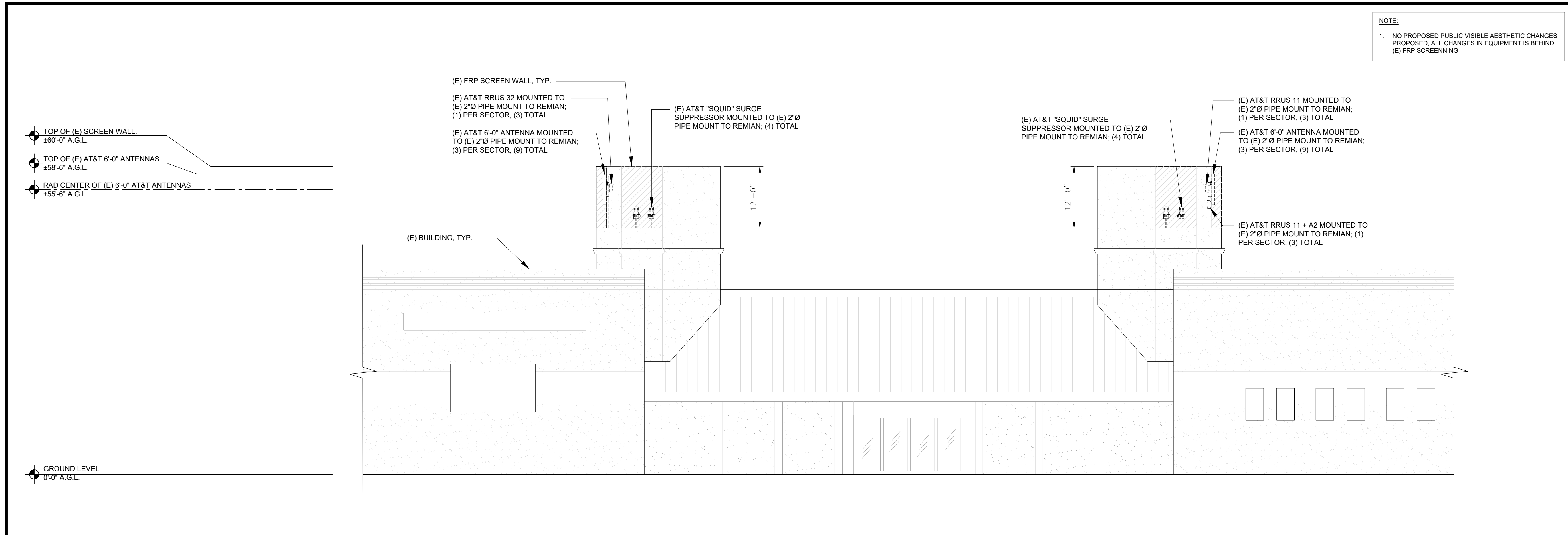
| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |



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.

ANTENNA LAYOUT

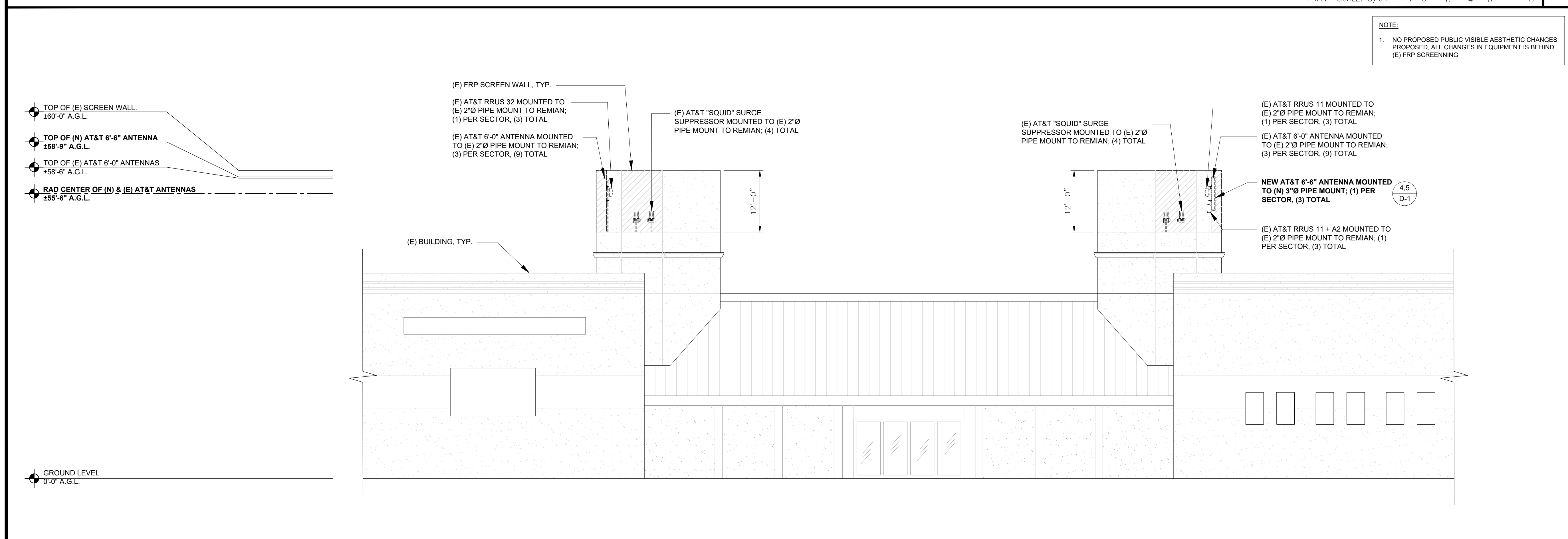
A-3



NOTE:  
1. NO PROPOSED PUBLIC VISIBLE AESTHETIC CHANGES PROPOSED. ALL CHANGES IN EQUIPMENT IS BEHIND (E) FRP SCREENNING

**EXISTING EAST ELEVATION**

24"x36" SCALE: 3/32" = 1'-0"  
11"x17" SCALE: 3/64" = 1'-0"



NOTE:  
1. NO PROPOSED PUBLIC VISIBLE AESTHETIC CHANGES PROPOSED. ALL CHANGES IN EQUIPMENT IS BEHIND (E) FRP SCREENNING

**NEW EAST ELEVATION**

24"x36" SCALE: 3/32" = 1'-0"  
11"x17" SCALE: 3/64" = 1'-0"

APPLICANT

PLANNING

13948 CALLE BUENO GANAR  
JAMUL, CA 91935

ENGINEER

1387 CALLE AVANZADO  
SAN CLEMENTE CA 92673 (949) 391-6624

SITE INFORMATION

SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP

DESIGN RECORD

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |

PROFESSIONAL STAMP

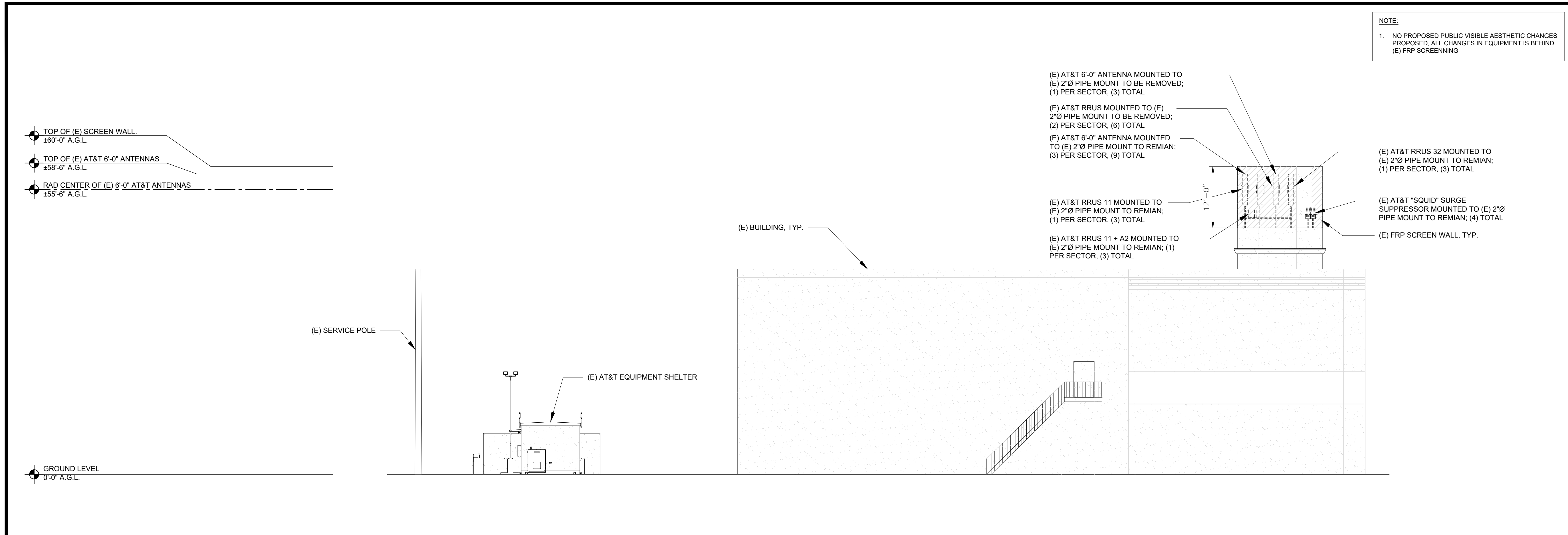
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET TITLE

ELEVATIONS

SHEET NUMBER

**A-4**



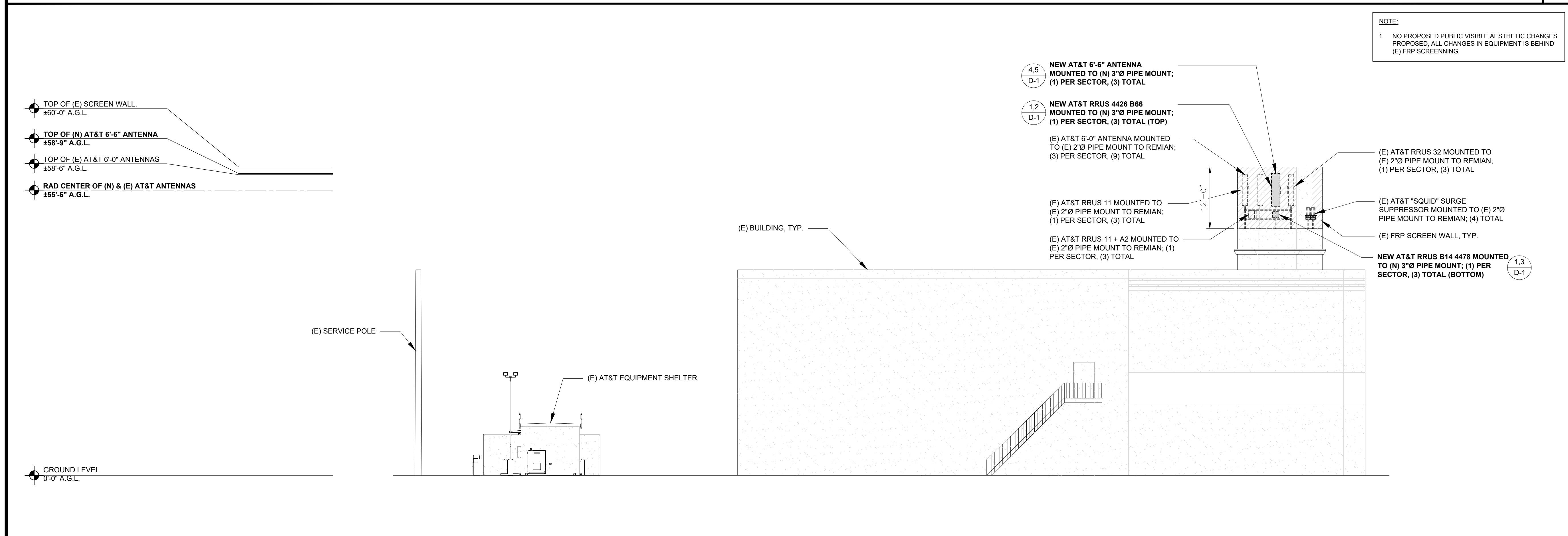
**EXISTING SOUTH ELEVATION**

**APPLICANT**  
at&t

**PLANNING**  
Deprattinc.  
13948 CALLE BUENO GANAR  
JAMUL, CA 91935

**ENGINEER**  
M SQUARE WIRELESS  
1387 CALLE AVANZADO  
SAN CLEMENTE CA 92673 (949) 391-6824

**SITE INFORMATION**  
SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP



**NEW SOUTH ELEVATION**

**DESIGN RECORD**

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |

**PROFESSIONAL STAMP**  
REGISTERED PROFESSIONAL ENGINEER  
TOTAL A. WHARTON  
CIVIL  
STATE OF CALIFORNIA  
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.

**SHEET TITLE**  
ELEVATIONS

**SHEET NUMBER**  
A-5



**NOT USED** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

**8 6'-6" PANEL ANTENNA** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

MANUFACTURER: ERICSSON  
MODEL NO.: BASEBANAD R503 XMU  
DIMENSIONS (HxWxD): 1.22" X 13.8" X 11" INCHES  
WEIGHT: 5 LBS (2.27 KG)

XMU UNIT  
6601 V2 CHASSIS  
DUS 41 UNIT

FRONT VIEW

|               |                 |                     |
|---------------|-----------------|---------------------|
| MANUFACTURER: | KATHREIN        |                     |
| MODEL NO.:    | 800-10991       |                     |
| DIMENSIONS:   | CONNECTOR TYPE: | TOTAL WEIGHT :      |
| A             | 78.7"           | -                   |
| B             | 20.0"           | CONNECTOR LOCATION: |
| C             | 6.9"            | -                   |
|               |                 | 100.9               |

TOP VIEW FRONT VIEW SIDE VIEW

**5 NEW RRUS B14 4478** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

B14 4478 IS EXPECTED FFA/GA IN 3Q

|   |       |
|---|-------|
| HEIGHT:                                       | 15"   |
| WIDTH:  | 13.2" |
| DEPTH:  | 7.4"  |
| 4X40W FOR 4T4R OR 2X40W+2X40W<br>2T2R SECTORS |       |
| 60 LBS  |       |
| ONE CPRI CONNECTION PER RRH                   |       |

APPLICANT

PLANNING

13948 CALLE BUENO GANAR  
JAMUL, CA 91935

ENGINEER

1387 CALLE AVANZADO  
SAN CLEMENTE CA 92673 (949) 391-8824

SITE INFORMATION

SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP

**7 XMU UNIT** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

MANUFACTURER: ERICSSON  
MODEL NO.: BASEBANAD 6601 MU  
DIMENSIONS (HxWxD): 2.8" X 19" X 13.7" INCHES  
WEIGHT: 22 LBS (48.4 KG)

\*INSTALLATION INTO EXISTING CABINET OR RACK  
REQUIRES NO SPECIAL INSPECTIONS.

6601 MU

FRONT VIEW

• INSTALLED INSIDE NEW LTE RACK / CABINET

**4 NEW ANTENNA MOUNTING DETAIL** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

| MAXIMUM TORQUE |                  |
|----------------|------------------|
| M8             | 15N.m (11FT.LBS) |
| M10            | 37N.m (27FT.LBS) |
| M12            | 58N.m (43FT.LBS) |

NEW ANTENNA MOUNTING BRACKET; BSAMNT-1 (INCLUDED)

PANEL ANTENNA

NEW ANTENNA MOUNTING BRACKET; BSAMNT-1 (INCLUDED)

EXISTING RRU MOUNTED BEHIND PANEL ANTENNA

CRITICAL: FOR INITIAL INSTALLATION TO PIPE, DOWNTILT BRACKETS MUST BE CONFIGURED IN PRE-ASSEMBLY POSITION (FULLY COLLAPSED)

ATTENTION: INSERT M12 BOLTS AND M12 FLAT WASHERS INTO BRACKET WITH TABS PRIOR TO ATTACHING BRACKET TO ANTENNA.

3" STD. PIPE (3-1/2" O.D.) ANTENNA MOUNTING MAST, MIN. 6'-0" L. (ATTACH TO EXISTING CROSSARM W/ SITE PRO 1 PN: SCX-4 CROSSOVER KIT)

\*\*2" DIA. PIPE MAY BE ACCEPTABLE FOR ONLY (1) RRU BEHIND ANTENNA- REFER TO STRUCTURAL ANALYSIS.

| MAXIMUM TORQUE |                  |
|----------------|------------------|
| M10            | 37N.m (27FT.LBS) |
| M12            | 58N.m (43FT.LBS) |

**3 NEW RRUS 4426 B66** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

RRUS 4426 B66

- › B66
  - TX = 2110 - 2180 MHz
  - RX = 1710 - 1780 MHz
- › CPRI 2 ports x 2.5/4.9/9.8/10.1 Gbps. Install 2 SFP7s and connect 2 fiber pair to the RRUS
  - 4426 during initial install.
- › Only use Ericsson supplied and approved SFP7s RDH10265/25
  - Install 2 SFP RDH 10265/3 for CPRI length 1.4 km - 10 km
  - Install SFP7 (pair), RDH 102 70/1 and RDH 102 70/2 (bi-directional SFP7 for CPRI length > 10 km
- › 2 external alarm inputs
- › Max wind load @ 50m/sec = 260N
- › Breaker size = 25A, DC Power Consumption = 670 W (for dimensioning)
- › 200mm horizontal separation required for side by side mounting
- › 200mm separation required from antenna backplane to radio
- › 400mm vertical outdoor/indoor separation required between 2 radios
- › 500mm vertical separation below antenna
- › Min, Max DC cable size from squid to radio = 10,8 AWG
  - Adapter is required for 2-wire connection
  - Shielded DC cable is required
- › Ground cable size = 2AWG
- › Dimensions (incl. handles, feet and sunshield, w/o fan unit)
  - Height: 14.96" (380 mm)
  - Width: 13.19" (335 mm)
  - Depth: 5.8" (147. mm)
- › Weight, excl. mounting hardware = 48.4 lbs (22 kg)

DESIGN RECORD

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |

**6 6601 MU + 5216 BASEBAND UNIT** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

MANUFACTURER: ERICSSON  
MODEL NO.: 516 BASE BAND UNIT  
DIMENSIONS (HxWxD): 2.8" X 19" X 13.78" INCHES  
WEIGHT: 23LBS

FRONT VIEW

• INSTALLED INSIDE NEW LTE RACK / CABINET

**4 RRUS @ STD. PIPE MOUNT** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

RRUS 11 OR 12

(E) 2" Ø OR 3" Ø ANTENNA MOUNTING PIPE

**2 NEW RRUS 4426 B66** 24"x36" SCALE: NTS  
11"x17" SCALE: NTS

ERICSSON RRUS-12  
DIMENSIONS (HxWxD): 20.4"x18.5"x7.5"  
(INCLUDES SUNSHIELD)  
WEIGHT: 58 LBS  
NOTES: RRU CAN ONLY BE PAINTED ON SOLAR SHIELD

ERICSSON RRUS A2  
DIMENSIONS (HxWxD): 12.8"x15"x3.5"  
(INCLUDES SUNSHIELD)  
WEIGHT: 15 LBS

PIPE CLAMP MOUNTING BRACKET  
PIPE CLAMP

PROFESSIONAL STAMP

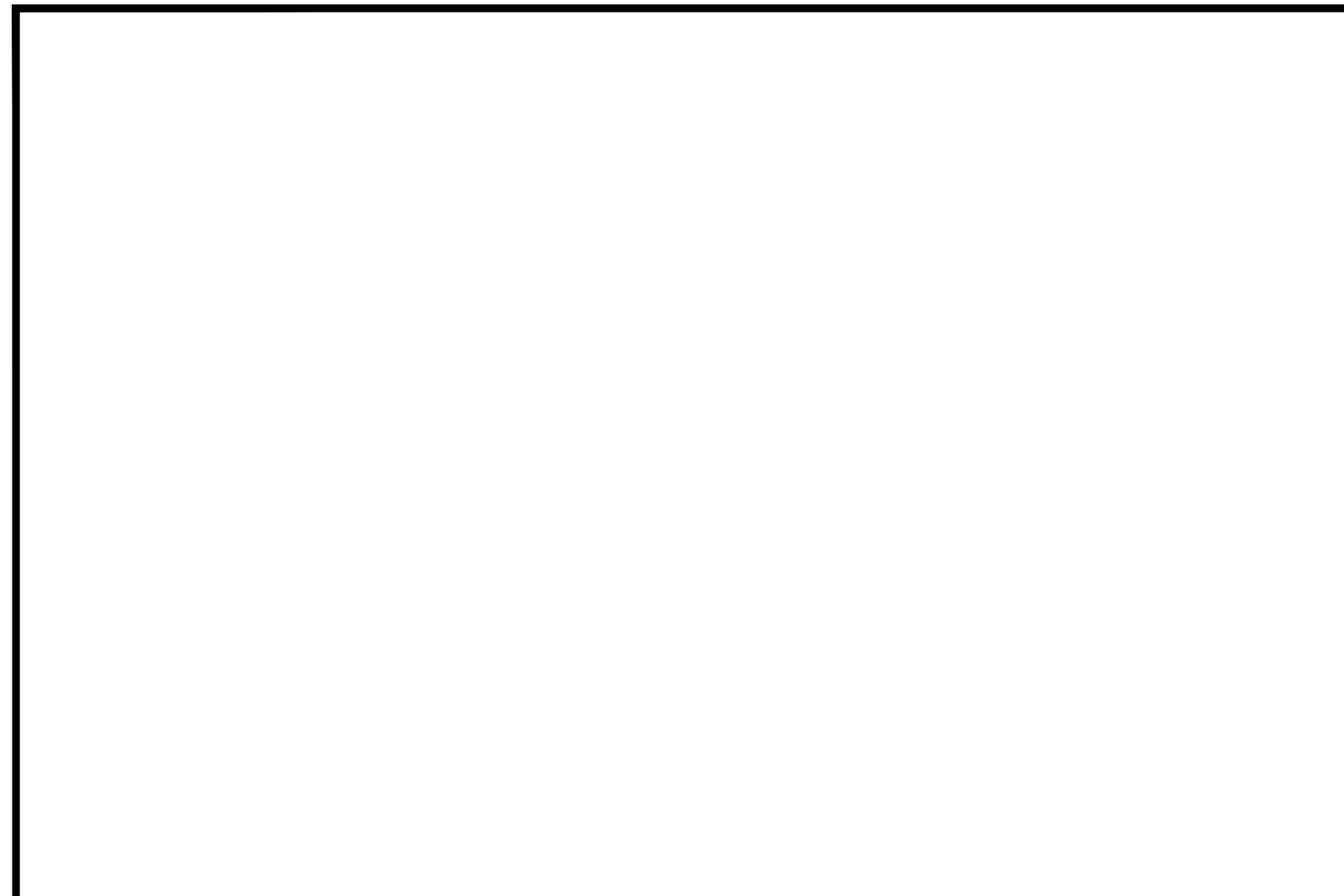
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET TITLE

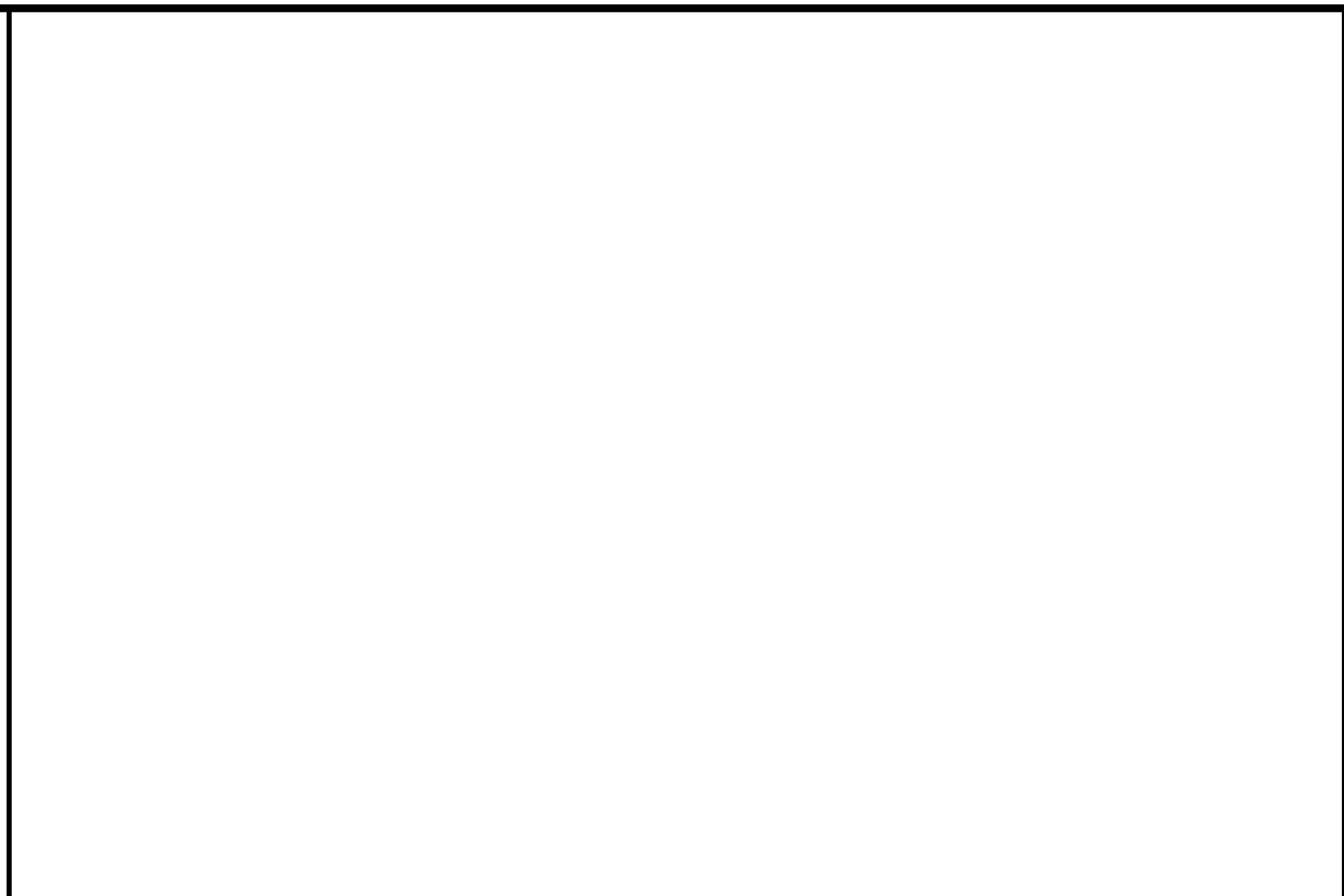
DETAILS

SHEET NUMBER

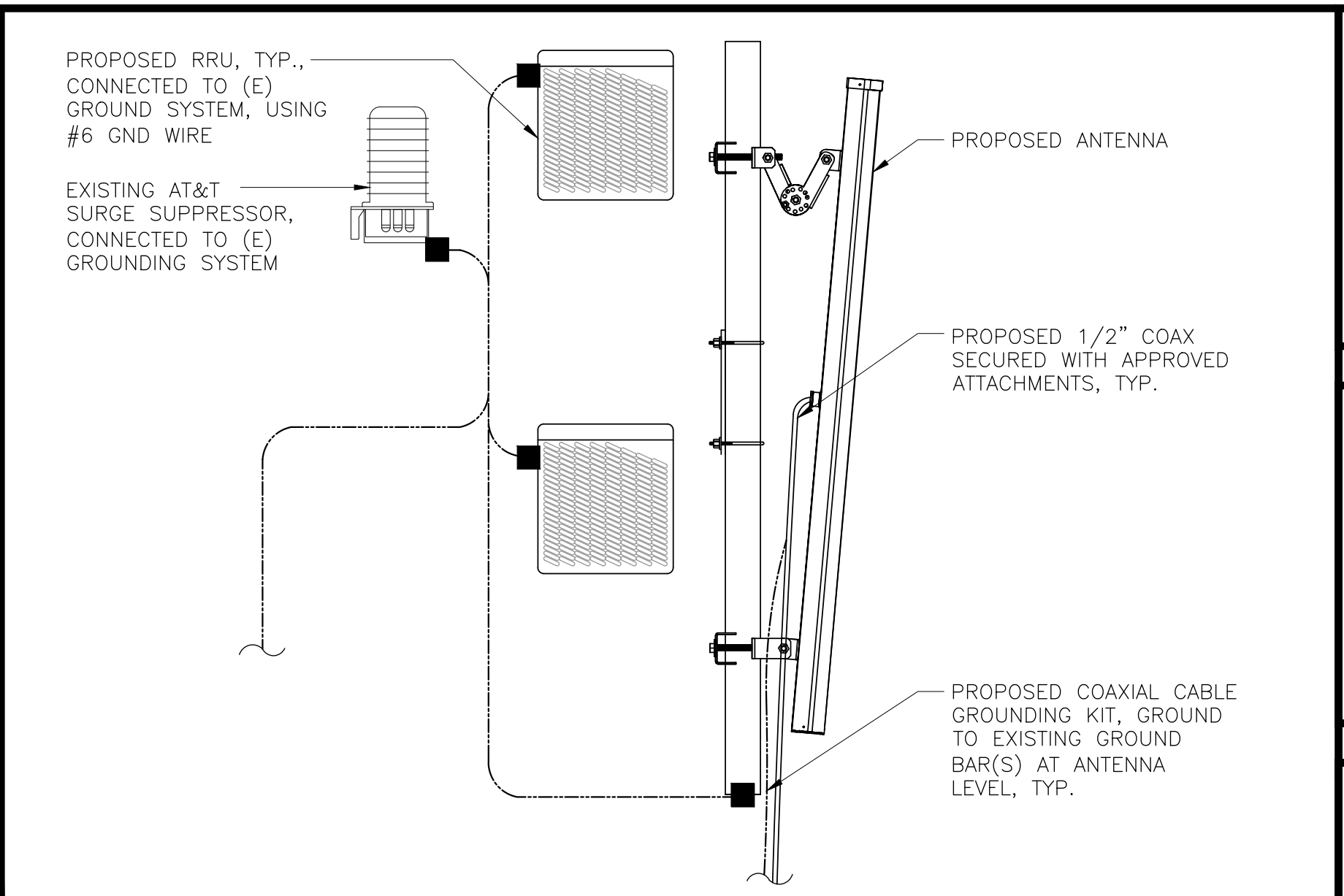
D-1



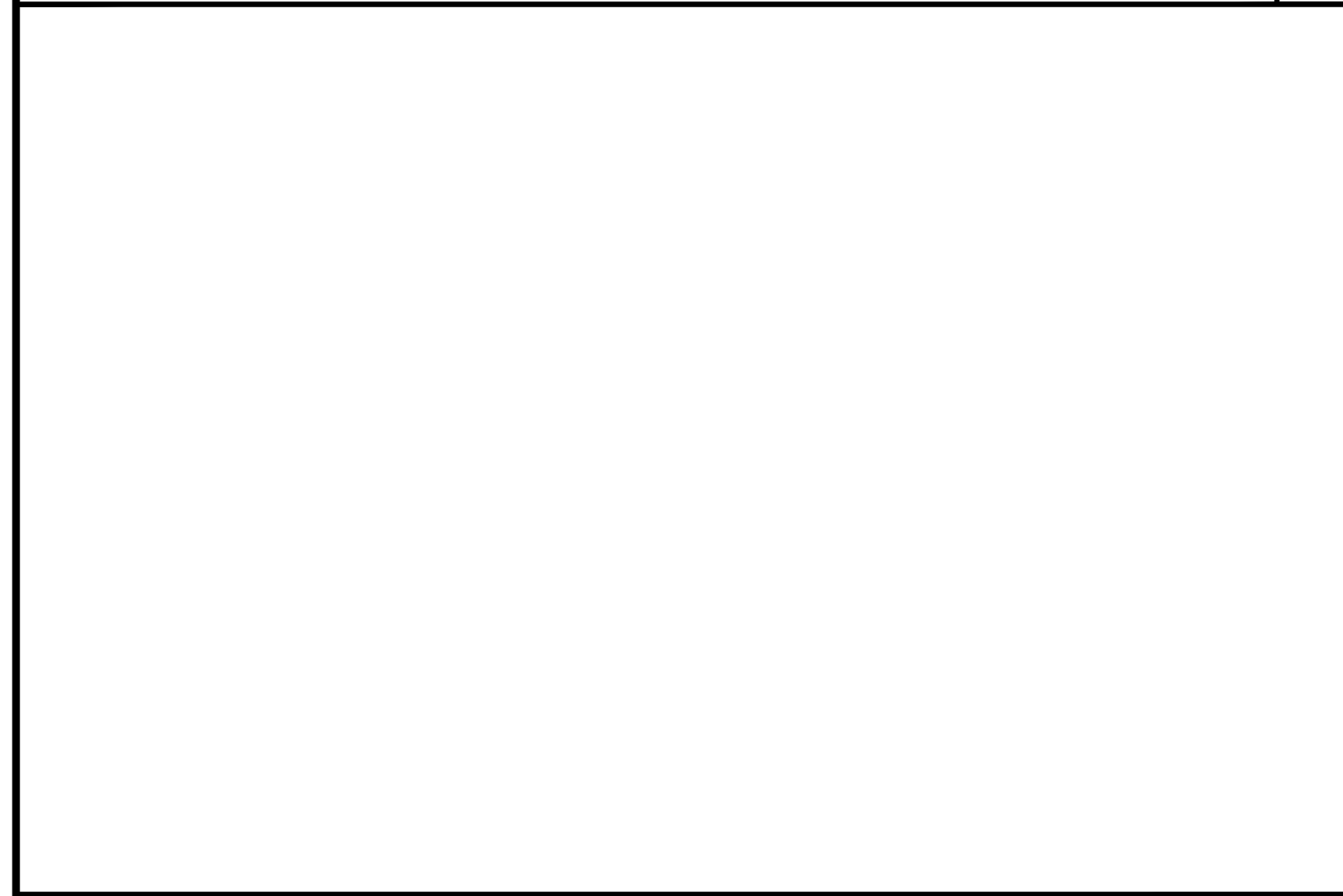
NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS 9



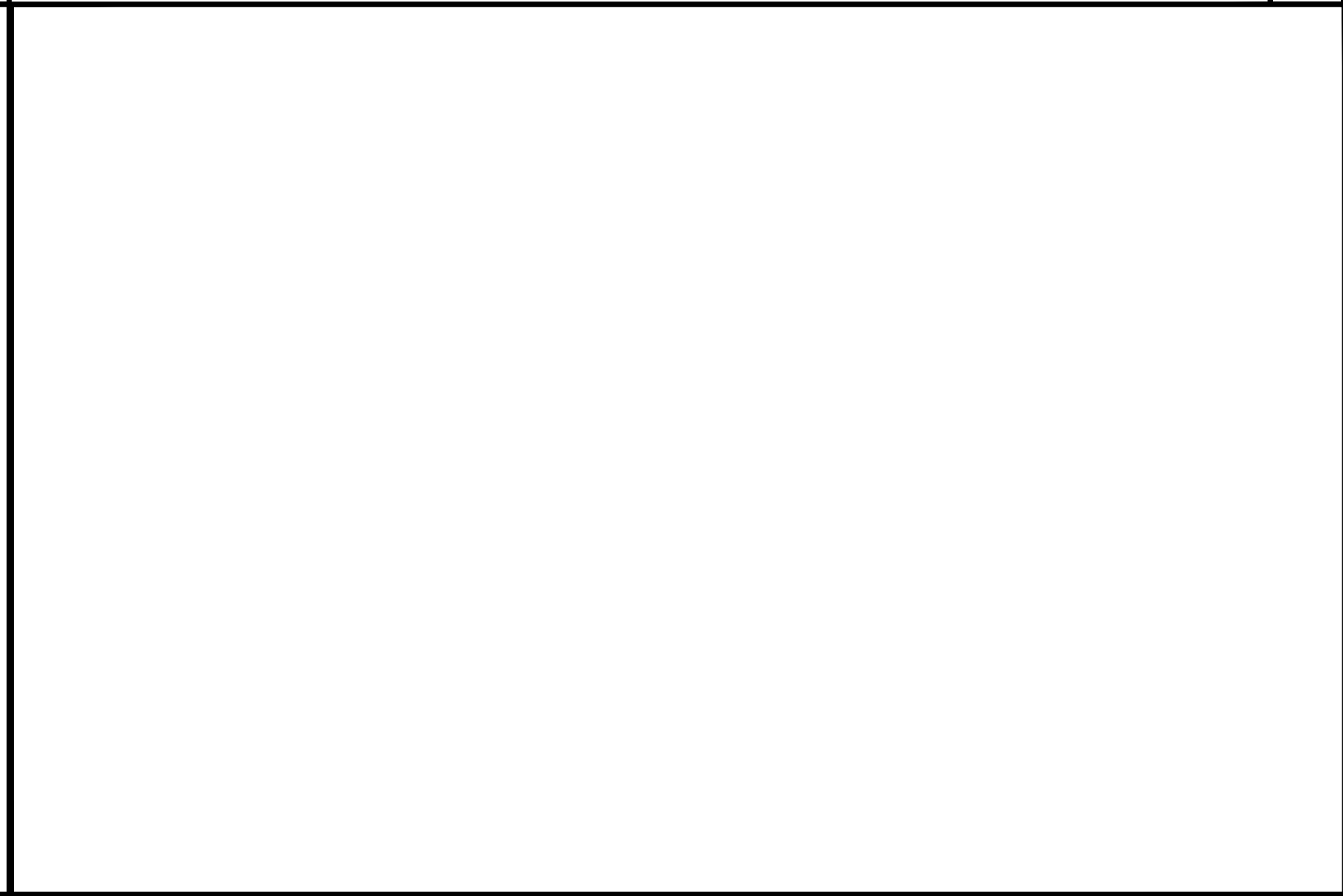
NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS 6



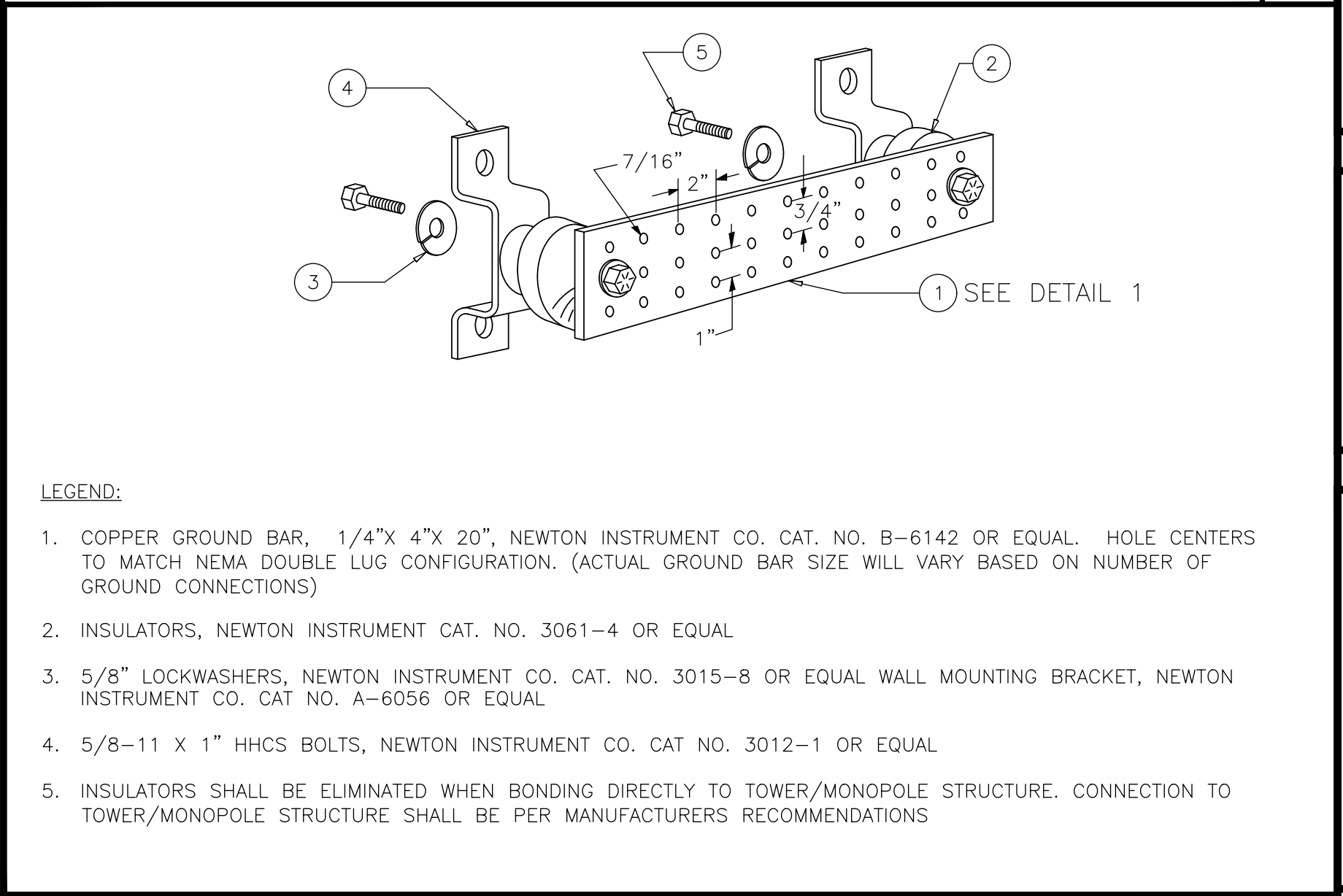
ANTENNA/RRU GROUNDING 24"x36" SCALE: NTS 11"x17" SCALE: NTS 3



NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS 8



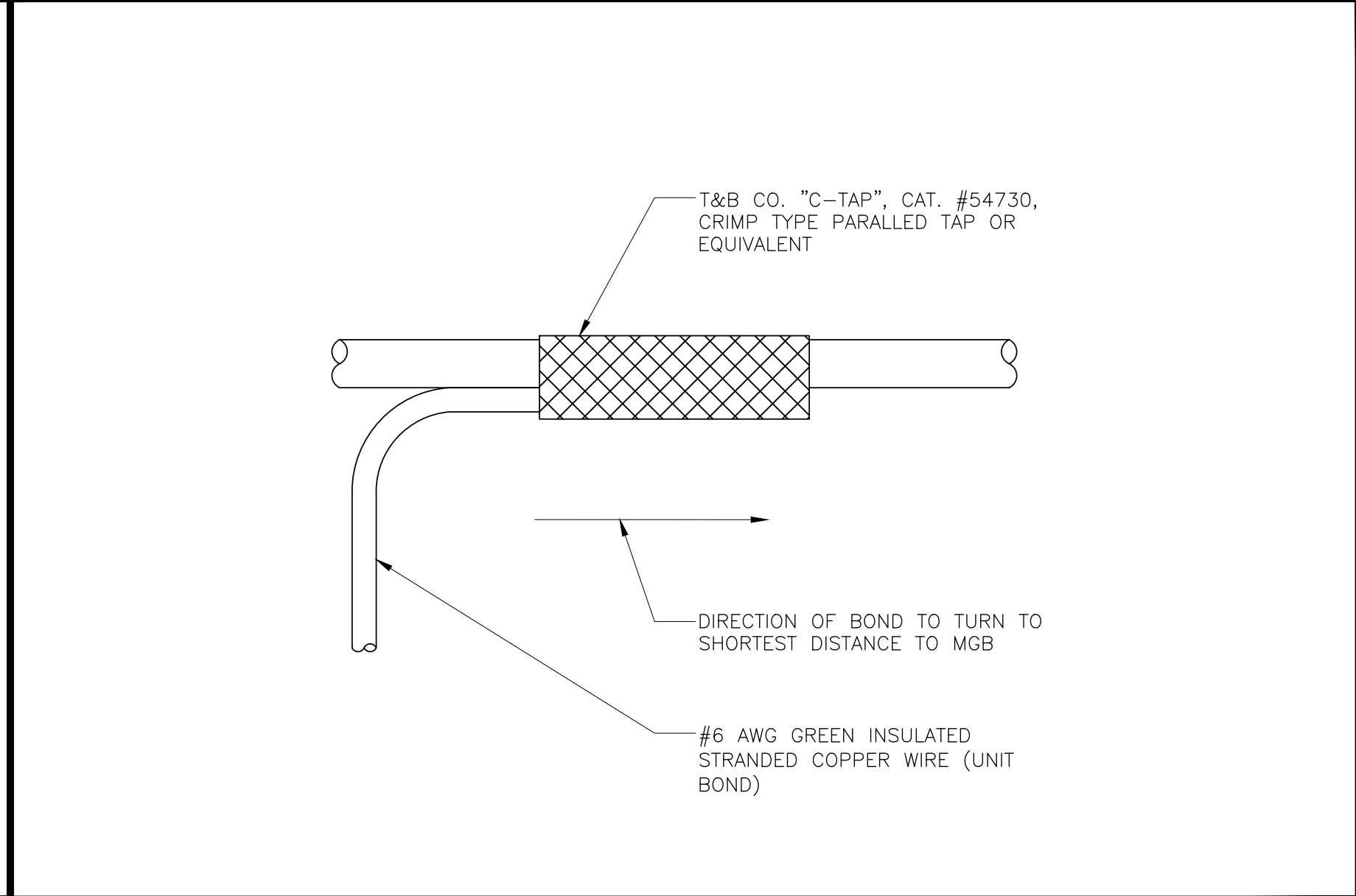
NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS 5



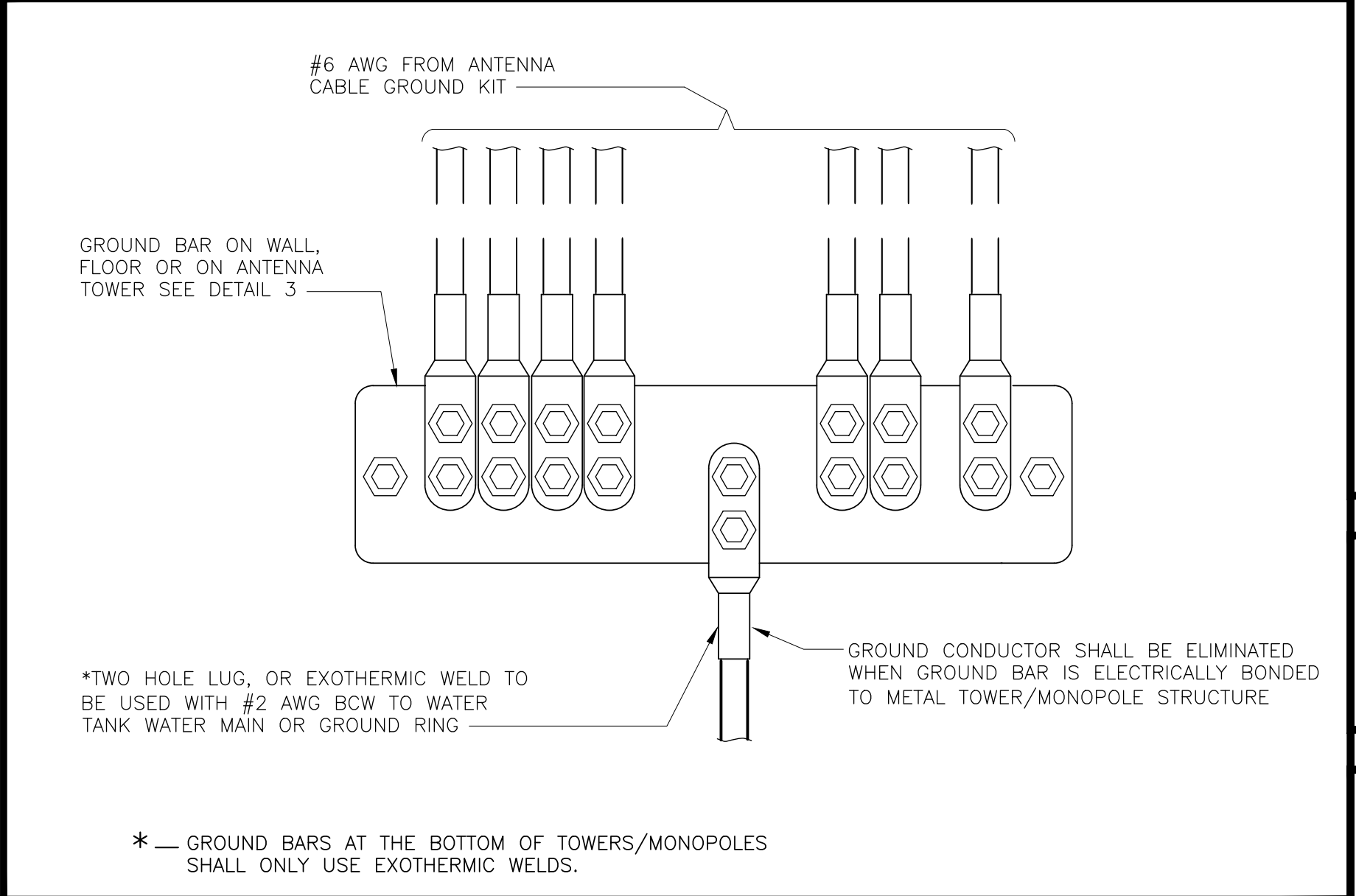
EXISTING GROUNDING BAR DETAIL 24"x36" SCALE: NTS 11"x17" SCALE: NTS 2



NOT USED 24"x36" SCALE: NTS 11"x17" SCALE: NTS 7



(E) GROUNDING WIRE CONNECTION 24"x36" SCALE: NTS 11"x17" SCALE: NTS 4



(E) WIRE TO GROUND BAR CONNECTION 24"x36" SCALE: NTS 11"x17" SCALE: NTS 1

APPLICANT

PLANNING

13948 CALLE BUENO GANAR  
JAMUL, CA 91935

ENGINEER

1387 CALLE AVANZADO  
SAN CLEMENTE CA 92673 (949) 391-6624

SITE INFORMATION

SITE NUMBER: IC0732  
FA NUMBER: 10546464  
COSTCO EL CENTRO  
2335 HIGHWAY 86  
IMPERIAL, CA 92251  
IMPERIAL COUNTY  
ROOFTOP

DESIGN RECORD

| REV | DATE       | DESCRIPTION             | BY |
|-----|------------|-------------------------|----|
| 0   | 01/21/2018 | 100% CD'S FOR SUBMITTAL | RG |
| A   | 01/17/2018 | 90% CD'S FOR REVIEW     | RG |

PROFESSIONAL STAMP

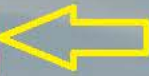
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET TITLE

GROUNDING SCHEMATIC & GROUNDING DETAILS

SHEET NUMBER

G-1




Camouflage Cell Sites



# Modifications to Cellular Facility (CUP 18-04)



|   |                         |                   |   |   |
|---|-------------------------|-------------------|---|---|
| <p>1" = 188 ft</p>  | <p>City of Imperial</p> | <p>04/27/2018</p> |  |  |
| <p>This map may represent a visual display of related geographic information. Data provided here on is not guarantee of actual field conditions. To be sure of complete accuracy, please contact the responsible staff for most up-to-date information.</p> |                         |                   |   |   |