

SITE NAME

FIRE STATION 43

SITE ADDRESS

2055 W. BITTERS ROAD SAN ANTONIO, BEXAR COUNTY, TEXAS 78248

PROJECT DATA

PROJECT INFORMATION:

BEXAR COUNTY

CONSTRUCTION TYPE: UNMANNED TELECOMMUNICATIONS

PROJECT PARTICIPANTS

LATITUDE: 29° 35' 41.71" N LONGITUDE: 98° 31' 51.18" W

APPLICANT: 5804 TRI COUNTY PARKWAY

ARCHITECTS / ENGINEERS

ARCHCOMM LLC. 1006 BECKETT SAN ANTONIO, TEXAS 78213 PHONE: (210) 308-9905 FIRM NUMBÉR: F-15659

CONSTRUCTION MANAGER

TRACY REEVES

CONSTRUCTION ENGINEER

MARK BROWN

DRIVING INSTRUCTIONS

FROM SCHERTZ, TX: TAKE HIGHWAY 1604 AND TRAVEL WEST TO BITTERS ROAD ON WEST BITTERS ROAD TRAVEL SOUTH. THE SITE WILL BE ON YOUR LEFT AFTER INWOOD COVE DRIVE.

UTILITIES

ELECTRIC COMPANY TELEPHONE COMPANY

SCOPE OF WORK

THIS IS AN APPLICATION TO MODIFY AN EXISTING UNMANNED WIRELESS FACILITY CONSISTING OF COMMUNICATION EQUIPMENT, CONNECTING CABLES, DIRECTIONAL ANTENNAS AND GPS. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS MAY BE MODIFIED OR CHANGED TO MEET NEW SYSTEM REQUIREMENTS. THE WIRELESS ANTENNAS WILL CONTINUE TO PROVIDE CLEAR AND RELIABLE WIRELESS COMMUNICATIONS WITHIN THE EFFECTIVE OPERATIONAL AREA. THESE MODIFICATIONS WILL NOT EFFECT THIS SITE'S ABILITY TO CONTINUE TO FUNCTION IF THE TELEPHONE (WIRE) SERVICE IS DISCONNECTED DURING AN EMERGENCY OR NATURAL DISASTER.

REMOVE (3) BXA ANTENNAS AND ADD (3) DUAL BAND 700/AWSANTENNAS WITH RET ACCESSORIES. ADD (6) RRHs & (1) OVP BOX. GENERAL:

SECTORS:

ALPHA: REPLACE (1) EXISTING LTE-BXA ANTENNA WITH (1) HTXCW ANTENNA. ADD (1) HTXCW ANTENNA. BETA: REPLACE (1) EXISTING LTE-BXA ANTENNA WITH (1) HTXCW ANTENNA. ADD (1) HTXCW ANTENNA. GAMMA: REPLACE (1) EXISTING LTE-BXA ANTENNA WITH (1) HTXCW ANTENNA. ADD (1) HTXCW ANTENNA.



TEAM SIGNOFF

SHEET INDEX

TITLE SHEET GENERAL NOTES SITE PLAN SITE ELEVATION SITE MODIFICATION CHANGE ORDER **Verizon**wireless

2055 W. BITTERS ROAD SAN ANTONIO, BEXAR COUNTY, TEXAS

LANDLORD

LEASING

CONSTRUCTION



ARCHCOMM, LLC. 1006 Beckett San Antonio, Texas 78213 (210) 308-9905 TBPE NO. F-15659

> SHEET TITLE TITLE SHEET

SHEET HISTORY 5.28.14 PERMIT SET

GENERAL NOTES:

- 1. FOR THE PURPOSE OF THESE CONSTRUCTION DOCUMENTS, THE FOLLOWING **DEFINITIONS SHALL APPLY:** CONTRACTOR - GENERAL CONTRACTOR OWNER - OWNER OF THE SITE
 - PROJECT MANAGER NEW CARRIER'S PROJECT MANAGER
- 2. CARE SHALL BE TAKEN TO PROTECT THE SITE AND THE SURROUNDING AREA FROM FIRE HAZARD DURING 'HOT' OPERATIONS. ADEQUATE EQUIPMENT, PERSONNEL AND EMERGENCY COMMUNICATIONS SHALL BE PROVIDED TO PROTECT LIFE AND PROPERTY IN AND SURROUNDING THE CONSTRUCTION SITE.
- ALL EXCAVATIONS SHALL BE BARRICADED FOR PERSONNEL PROTECTION AND IF CONCRETE PIERS ARE DRILLED, THEY SHALL BE FILLED BY END OF DAY.
- VERIFY REQUIREMENTS OF OTHER TRADES PRIOR TO PROCEEDING WITH FABRICATION OR INSTALLATION OF MATERIALS.
- COMPLETE SHOP DRAWINGS SHALL BE PROVIDED FOR ALL FABRICATED ITEMS FOR REVIEW PRIOR TO FABRICATION. DRAWINGS CONTAINED IN THESE CONSTRUCTION DOCUMENTS SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS.
- 6. THE BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE WITH NO ADDITIONAL COSTS TO THE OWNER/LESSOR/PROJECT MANAGEMENT TEAM FOR ALL FEES, PERMITS, INSPECTION FEES RELATED TO THIS PROJECT, OR SEE THAT ANY AND ALL SUCH CHARGES ARE PAID BY THE RESPECTIVE SUBCONTRACTORS ASSOCIATED
- 7. DIMENSIONS NOTED AS '+/-' OR 'VERIFY' ARE BASED ON MATCHING EXISTING CONDITIONS AND MAY VARY SLIGHTLY FROM THE DIMENSIONS AS SHOWN. NOTIFY THE CARRIER'S PROJECT MANAGER IF SIGNIFICANT VARIATIONS ARE ENCOUNTERED. AT THE SITE.
- THE NATURE OF THE SITE RELATED ACTIVITIES REQUIRES THAT ACCESS TO THE SITE MUST BE MANAGED AT ALL TIMES DURING HOURS OF OPERATION AND WHEN THE SITE IS UNATTENDED. WORK WITH THE OWNERS REPRESENTATIVE FOR SAFETY AND SECURITY AT ALL TIMES.
- CONTRACTORS SHALL BE REQUIRED TO PICK UP ALL OWNER SUPPLIED EQUIPMENT AS DIRECTED BY THE PROJECT MANAGER WITH NO ADDITIONAL COST TO THE JOB.
- 10. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- 11. CONTRACTOR SHALL HAVE A PRECONSTRUCTION MEETING WITH THE CARRIER'S PROJECT MANAGER TO DISCUSS ALL ASPECTS OF THE SCOPE OF THESE DRAWINGS TO ENSURE HE IS FAMILIAR WITH AND UNDERSTANDS ALL REQUIREMENTS AND INTENT OF EACH ACTIVITY.
- 12. THE CONTRACTOR SHALL REVIEW, BE THROUGHLY FAMILIAR WITH AND UNDERSTAND ALL DOCUMENTS CONCERNING THIS PROJECT INCLUDING, BUT NOT LIMITED TO, THIS SET OF DOCUMENTS; TOWER AND TOWER FOUNDATION DRAWINGS; SHELTER AND/OR PLATFORM DRAWINGS: STEALTH DRAWINGS (IF APPLICABLE) AND ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES & ORDINANCES.
- 13. NO WORK OF ANY KIND SHALL BE ACCOMPLISHED BY ANY TRADE IN FRONT OF ANY OPERATING ANTENNA.
- 14. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL FABRICATED STEEL ITEMS SHALL BE HOT DIPPED GALVANIZED PRIOR TO SHIPPING TO THE SITE.

EXISTING TOWERS:

- CONTRACTOR SHALL ATTAIN AND VERIFY STRUCTURAL EVALUATION REPORT OF EXISTING TOWER FOR STRUCTURAL ADEQUACIES AND EXACT PLACEMENT OF ANTENNAS AND COAX CABLES. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL EVALUATION REPORT AND NOTIFY ARCHCOMM LLC IN THE CASE OF A DISCREPANCY. ANY STRUCTURAL MODIFICATIONS, IF REQUIRED, SHALL BE DONE PRIOR TO INSTALLATION OF ANTENNAS.
- THE EXISTING TOWERS CAPACITY TO SUPPORT NEW EQUIPMENT IS IN PART BASED ON THE ASSUMPTION THAT IT WAS BUILT AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION (REFER TO STRUCTURAL ENGINEERS ANALYSIS & REPORT). THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING TOWER PRIOR TO THE START OF ANY NEW CONSTRUCTION AND REPORT TO THE PROJECT MANAGER ANY CONDITION THAT HE BELIEVES IS NOT IN KEEPING WITH TIA-222-G ANNEX J: MAINTENANCE AND CONDITION ASSESSMENT.

EXISTING CONDITIONS:

- 1. DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT NO DISRUPTION OF EXISTING FACILITY OPERATIONS WILL OCCUR.
- 2. THIS BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING FACILITIES AND SHALL REPLACE OR REPAIR TO THE ORIGINAL CONDITION AS DETERMINED BY THE PROJECT MANAGER.
- 3. CUT AND PATCH ANY AREAS WHERE REQUIRED BY THE SCOPE OF THIS PROJECT. MATCH EXISTING WORK AND MATERIALS EVEN IF SUCH WORK FALLS OUTSIDE OF THE LIMITS OF THIS CONTRACT.
- 4. THE OWNER OF THE SITE RETAINS SALVAGE RIGHTS TO ALL MATERIALS AND EQUIPMENT REMOVED FROM THE EXISTING WORK. MATERIALS AND FOLIPMENT NOT CLAIMED BY THE OWNER SHALL BECOME THE PROPERTY OF THE BUILDER/SUBCONTRACTOR WHO SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE REMOVAL AND APPROPRIATE DISPOSAL THEREOF.
- 5. VERIFY ALL EXISTING SITE CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE
- 6. ALL BIDDERS SHALL VISIT THE SITE BEFORE BIDDING TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS.
- 7. CARE SHALL BE TAKEN TO LOCATE ALL EXISTING UNDERGROUND OBSTRUCTIONS, UTILITIES AND/OR EASEMENTS BEFORE DIGGING OR DRILLING ON THE SITE.
- 8. UTILITY CHECK BEFORE COMMENCING ANY WORK AT THE SITE, CONTACT THE ONE CALL SYSTEM IN THE STATE IN WHICH UNDERGROUND WORK IS BEING DONE. REFER TO ONE CALL NOTE ON SITE PLAN.

CONSTRUCTION CODES:

 ALL WORK SHALL BE ACCOMPLISHED AS PER ALL APPLICABLE CURRENT STATE, LOCAL AND NATIONAL CODES. THESE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

INTERNATIONAL BUILDING CODE (OR LOCAL ACCEPTED CODE)
NATIONAL FIRE PROTECTION ASSOCIATION—
NFPA 70, NATIONAL ELECTRIC CODE

THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION-SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL

STEEL FOR BUILDINGS THE AMERICAN CONCRETE INSTITUTE-BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE. AMERICAN WELDING SOCIETY-

TOWER DESIGN - STANDARD PER EIA/TIA-

- TIA 607 GROUNDING & BONDING REQUIREMENTS FOR TELECOMMUNICATIONS.
- TIA 568 COMMERCIAL BUILDING TELECOMMUNICATION WIRING STANDARD.
 TIA 569 COMMERCIAL BUILDING STANDARDS FOR TELECOMMUNICATION
- PATHWAYS AND SPACES.
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)—
 IEEE 81 GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE & EARTH SURFACE POTENTIALS OF A GROUND SYSTEM. IEEE 1100 - RECOMMENDED PRACTICE FOR POWERING & GROUNDING OF
- ELECTRONIC EQUIPMENT.
 IEEE C62.41 RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS.

ANSI T1.311 FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION.

HANDICAP REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ADA ACCESS REQUIREMENTS DO NOT APPLY.

OTHER REQUIREMENTS: THIS FACILITY HAS NO PLUMBING OR PARKING.

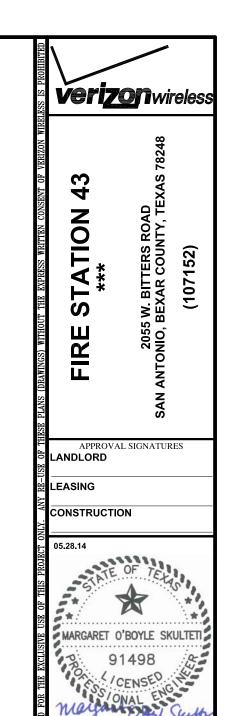
2. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

FLOOD HAZARD ZONES:

1. ALL SITES LOCATED WITHIN A FLOOD HAZARD ZONE SHALL HAVE TOP OF SLAB AND/OR TOP OF GRATING RAISED TO BE AT LEAST 12" ABOVE THE BASE FLOOD ELEVATION. THIS INCLUDES SHELTERS, RAISED EQUIPMENT PLATFORMS, GENERATORS, FUEL TANKS AND ALL ELECTRICAL EQUIPMENT.

SITE DEVELOPMENT & FINISHING NOTES:

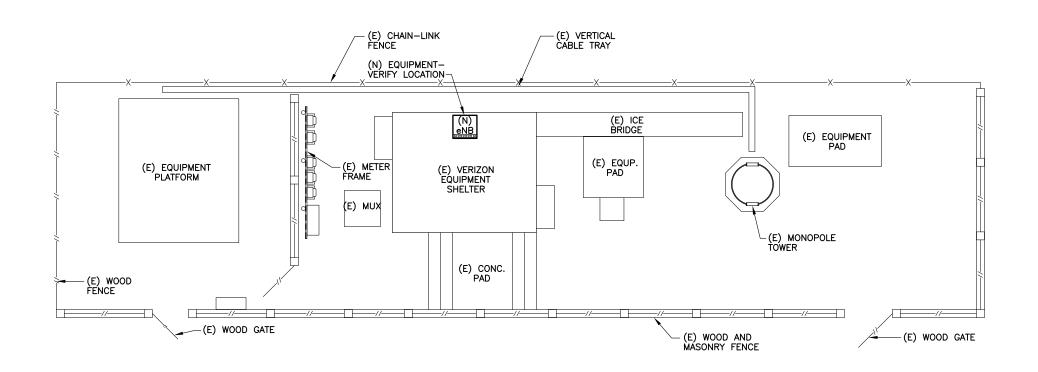
- 1. DIGGING AND EXCAVATION HAND DIG ALL EXCAVATIONS AND TRENCHES IN AREAS SUSPECTED TO CONTAIN EXISTING GROUNDING CONDUCTORS, GROUND RODS, POWER/TELCO CABLES OR OTHER BURIED UTILITIES.
- 2. COLLOCATION SITE FINISHING UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER'S PROJECT MANAGER, AREAS OF COMPOUND EXPANSION OR SPACE LOCATED WITHIN THE LEASED AREA SHALL BE FINISHED TO THE SAME STANDARD AS THE BALANCE OF THE EXISTING COMPOUND OR AT THE SOLE DISCRETION OF THE NEW CARRIER'S PROJECT MANAGER, THE FINISH STANDARD OF THE NEW CARRIER SHALL BE PROVIDED. REFER TO ITEM #3 BELOW.
- 3. NEW CARRIER'S SITE FINISH STANDARD PROVIDE A MINIMUM 4" THICK LAYER OF CRUSHED STONE (APPROX. 1" DIAMETER W/O FINES) OVER 6 MIL. WEED BARRIER. OVER 6" COMPACTED BASE. FILL MATERIAL SHALL BE EQUAL TO CRUSHED LIMESTONE CONFORMING TO STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS FOR TYPE 'A', GRADE 2 MATERIAL COMPACTED TO 95% PROCTOR DENSITY OVER A COMPACTED SUB-GRADE THAT WAS SCARIFIED AND RECOMPACTED TO 95% PROCTOR DENSITY.
- 4. REPAIR/REPLACE AT NO ADDITIONAL EXPENSE TO THIS CONTRACT, ANY CONSTRUCTION RELATED DAMAGE TO ANY EXISTING SITE ELEMENTS OR FINISHES WITHIN THE COMPOUND, IN ADJACENT AND/OR ALONG ROUTES TO THE WORK AREA, HOWEVER INCIDENTAL TO THE PROSECUTION OF THE WORK, SHALL BE PUT IN A PRECONSTRUCTION CONDITION TO THE SATISFACTION OF THE NEW CARRIER'S PROJECT MANAGER.
- 5. BACKFILL ALL BORROWED FILL MATERIAL SHALL BE EQUAL TO STATE SPECIFICATION FOR TYPE A, GRADE 1 OR 2, COMPACTED TO 95% PROCTOR DENSITY. WHERE TRENCHING IS REQUIRED BACKFILLING WITH MATERIALS EXCAVATED FROM THE TRENCH WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER'S PROJECT MANAGER. ALL TRENCH BACK FILLING SHOULD BE COMPACTED IN LIFTS NOT TO EXCEED 6" COMPACTED DEPTH AND TO 95% PROCTOR DENSITY FLUSH TO THE SURFACE OF THE FINISHED COMPACTED SUB-GRADE.
- 6. UNLESS INDICATED OTHERWISE, SITES SHALL NOT HAVE SLOPES GREATER THAN 1/4" PER FOOT AND THE AREA IMMEDIATELY AROUND NEW EQUIPMENT SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE FOUIPMENT

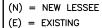




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| PROPERT | 05.28.14 PERMIT SET |
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| ARE | |
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(F) = FUTURE

THIS SITE PLAN WAS DRAWN WITHOUT THE BENEFIT OF A CIVIL SURVEY; THEREFORE, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING ANY WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK.







43 STATION ***

FIRE

2055 W. BITTERS ROAD SAN ANTONIO, BEXAR COUNTY, TEXAS 78248

(107152)

APPROVAL SIGNATURES LANDLORD

LEASING

CONSTRUCTION

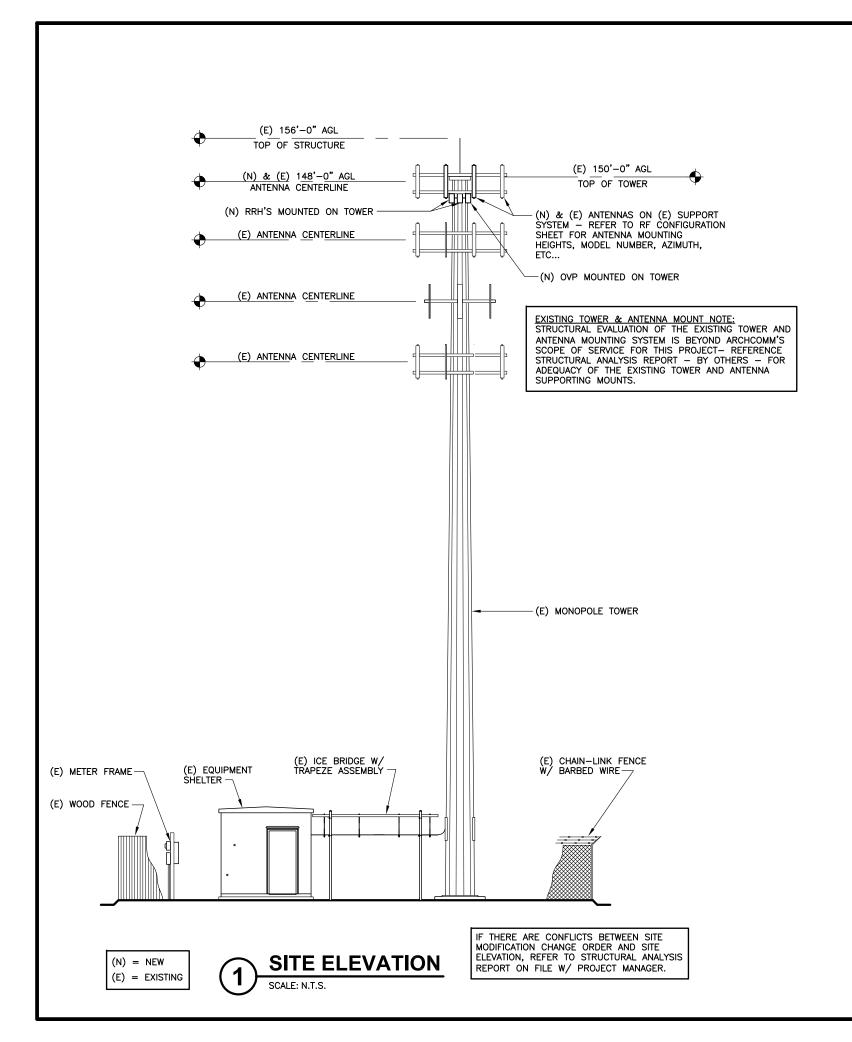


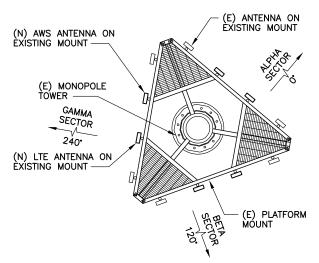


ARCHCOMM, LLC. 1006 Beckett San Antonio, Texas 78213 (210) 308-9905 TBPE NO. F-15659

> SHEET TITLE SITE PLAN

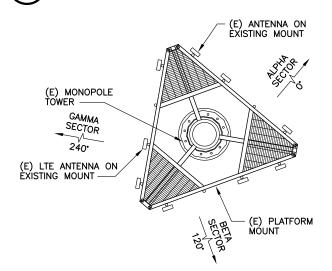
SHEET HISTORY 05.28.14 PERMIT SET



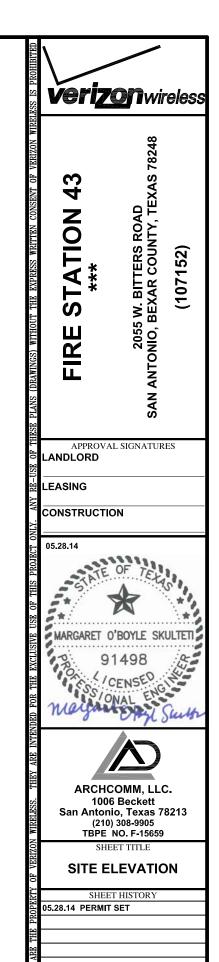


ANTENNA LAYOUT-AFTER

SCALE: N.T.S.



2 ANTENNA LAYOUT-BEFORE SCALE: N.T.S.



| Project Name: FIRE STATION #43 - AWS Carrier Add 03/10/2014 | Task Submitted On: 03/10/2014 | |
|---|-------------------------------|--|
| Task Submitted By: Carlos Arredondo | | |

Site Modification Change Order

Mod Type: LTE Modification

FIRE STATION #43 - AWS Carrier Add 03/10/2014 **Project Title:** Carlos Arredondo **Requestor Name:**

210-871-6354 **Requestor Phone:**

Carlos Arredondo RF Engineer: Expected Completed Date: 05/01/2014 BTA Name: San Antonio, TX

BTA Number:

Site Information Coordinates (NAD83):

Latitude: 29-35-41.71 N 98-31-51.18 W Ground Elevation (ft AMSL): 1007.0

LTE Phase Type:

[] Colocation [X] VZW Owned Tower [] Rooftop Site Type:

Antennas

| Antennas : | | | | | |
|---|----------------------------|----------------------------|----------------------------|--|--|
| Service Type: 700 Upper | | | | | |
| CURRENT | | | | | |
| Sector | 0013-Alpha | 0013-Beta | 0013-Gamma | | |
| Antenna Quantity (Tx + Rx) | 1 | 1 | 1 | | |
| Manufacturer | ANTEL | ANTEL | ANTEL | | |
| Model Number | BXA-70063-6CF- 6-750MHZ | BXA-70063-6CF- 6-750MHZ | BXA-70063-6CF- 6-750MHZ | | |
| Antenna gain (dBd) | 14.5 | 14.5 | 14.5 | | |
| Antenna Beamwidth (deg) | 65 | 65 | 65 | | |
| Sector Azimuth (deg TN) | 0 | 120 | 240 | | |
| Antenna Tip Height (for EME) (ft AGL) | 151.00 | 151.00 | 151.00 | | |
| Mechanical Downtilt (deg) | 2 | 1 | 3 | | |
| Adjustable Electrical Downtilt (deg) | | | | | |
| Feedline Length (ft) | | | | | |
| Number of Lines per Antenna | | | | | |
| Feedline Model Number | | | | | |
| RAD Center (ft AGL) | 148.00 | 148.00 | 148.00 | | |
| Service Type: PCS B | | | | | |

CURRENT 0013-Gamma 0013-Beta

GeoPlan Market: Austin

5-0013-0000 FIRE STATION **Current Configuration:**

5-0013-AWS3 FIRE STATION **Proposed Configuration:** A-0013-AWS3 FIRE STATION #43

Switch Identifier: 4182-5 Schertz

Cluster #:

Address:

County:

Street: 2055 W Bitters Rd City, State, Zip: San Antonio TX 78248

LTE Phase: N/A

| Service Type: 700 Upper PROPOSED | | | | |
|---|-----------------------------|-----------------------------|-----------------------------|--|
| Sector | 0013-Alpha | 0013-Beta | 0013-Gamma | |
| Antenna Quantity (Tx + Rx) | 1 | 1 | 1 | |
| Manufacturer | AMPHENOL | AMPHENOL | AMPHENOL | |
| Model Number | HTXCW631819R0 00-T00-750 | HTXCW631819R0 00-T00-750 | HTXCW631819R0 00-T00-750 | |
| Antenna gain (dBd) | 15.4 | 15.4 | 15.4 | |
| Antenna Beamwidth (deg) | 68 | 68 | 68 | |
| Sector Azimuth (deg TN) | 0 | 120 | 240 | |
| Antenna Tip Height (for EME) (ft AGL) | 150.59 | 150.59 | 150.59 | |
| Mechanical Downtilt (deg) | 0 | 0 | 0 | |
| Adjustable Electrical Downtilt (deg) | 0 | 0 | 0 | |
| Feedline Length (ft) | | | | |
| Number of Lines per Antenna | | | | |
| Feedline Model Number | | | | |
| RAD Center (ft | 146.00 | 146.00 | 146.00 | |

| RAD Center (ft AGL) | 146.00 | 146.00 | 146.00 | | |
|------------------------|------------------------------|-----------|------------|--|--|
| | Service Type: PCS B PROPOSED | | | | |
| Sector | 0013-Alpha | 0013-Beta | 0013-Gamma | | |
| | | | | | |

| Antenna Quantity (Tx + Rx) | 2 | 2 | 2 |
|---|---------------|---------------|---------------|
| Manufacturer | CSA WIRELESS | CSA WIRELESS | CSA WIRELESS |
| Model Number | PCSA-090-19-0 | PCSA-090-19-0 | PCSA-090-19-0 |
| Antenna gain (dBi) | 18.0 | 18.0 | 18.0 |
| Antenna Beamwidth (deg) | 84 | 84 | 84 |
| Sector Azimuth (deg TN) | 0 | 120 | 240 |
| Antenna Tip Height (for EME) (ft AGL) | 151.00 | 151.00 | 151.00 |
| Mechanical Downtilt (deg) | 3 | 4 | 5 |
| Adjustable Electrical Downtilt (deg) | | | |
| Feedline Length (ft) | | | |
| Number of Lines per Antenna | | | |
| Feedline Model Number | | | |
| RAD Center (ft | 148.00 | 148.00 | 148.00 |

Service Type: AWS B

| CURRENT |
|---|
| Sector |
| Antenna Quantity (Tx + Rx) |
| Manufacturer |
| Model Number |
| Antenna gain (dBd) |
| Antenna Beamwidth (deg) |
| Sector Azimuth (deg TN) |
| Antenna Tip Height (for EME) (ff AGL) |
| Mechanical Downtilt (deg) |
| Adjustable Electrical Downtilt (deg) |
| Feedline Length (ft) |
| Number of Lines per Antenna |
| Feedline Model Number |
| RAD Center (ft AGL) |

| Number | | | | | | |
|---|------------------------------|------------------------------|------------------------------|--|--|--|
| RAD Center (ft AGL) | 148.00 | 148.00 | 148.00 | | | |
| Service Type: AWS B | | | | | | |
| PROPOSED | | | | | | |
| Sector | 0013-Alpha | 0013-Beta | 0013-Gamma | | | |
| Antenna Quantity (Tx + Rx) | 1 | 1 | 1 | | | |
| Manufacturer | AMPHENOL | AMPHENOL | AMPHENOL | | | |
| Model Number | HTXCW631819R0 00-T02-1900 | HTXCW631819R0 00-T02-1900 | HTXCW631819R0 00-T02-1900 | | | |
| Antenna gain (dBd) | 16.4 | 16.4 | 16.4 | | | |
| Antenna Beamwidth (deg) | 63 | 63 | 63 | | | |
| Sector Azimuth (deg TN) | 0 | 120 | 240 | | | |
| Antenna Tip Height (for EME) (ft AGL) | 150.59 | 150.59 | 150.59 | | | |
| Mechanical Downtilt (deg) | 0 | 0 | 0 | | | |
| Adjustable Electrical Downtilt (deg) | 2 | 2 | 2 | | | |
| Feedline Length (ft) | | | | | | |
| Number of Lines per Antenna | 0 | 0 | 0 | | | |
| Feedline Model Number | | | | | | |
| RAD Center (ft | 146.00 | 146.00 | 146.00 | | | |

CSA WIRELESS CSA WIRELESS CSA WIRELESS

120

151.00

PCSA-090-19-0 PCSA-090-19-0

18.0

84

240

151.00

PCSA-090-19-0

Mechanical

Electrical Downtilt (deg)

Feedline Length Number of Lines per Antenna

Feedline Model

The objective of this project is to add AWS service to a site with active 700-LTE and PCS services. The current PCS antennas will remain as they are. The current LTE antennas will be removed.

Add 3 dual band 700/AWS RET antennas, Amphenol HTXCW631819R000G. Antennas are RET capable please order all RET system components. Add 2 RRH antennas per sector RRH2X60-AWS.

Inside the shelter: Add one AWS eNB.

