



**REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT**

**Fort Bend County Engineering Department**  
301 Jackson Suite 401  
Richmond, Texas 77469  
281.633.7500  
Permits@fortbendcountytx.gov

- Right of Way Permit**
- Commercial Driveway Permit**

Permit No: 2016-10716

**Applicant:** Crown Castle NG General LLC/Shift Companies

**Job Location Site:** 3702 1/2 S Fry Road , Katy, TX 77450

**Bond No.**                      **Date of Bond:** 5/12/2014 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

**Notes:**

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru [MyGovernmentOnline.org](http://MyGovernmentOnline.org) portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 6th day of December, 2016, Upon Motion of Commissioner *Meyor*, seconded by Commissioner *Prestage*, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

**Signature**

Presented to Commissioners Court and approved.

By: *Charles O. Ay*  
*h* County Engineer

Date Recorded *12-09-16* Comm. Court No. *16F*

By: N/A  
Drainage District Engineer/Manager

Clerk of Commissioners Court  
By: *Jonka White*  
Deputy





November 28, 2016

Carmen Escobar, CFM  
Permit Administrator  
Fort Bend County Engineering  
301 Jackson St, Richmond, TX 77469

**RE: Cinco Ranch Traffic Control Plan  
- Shift Project #160614**

Carmen,

Per our conversation on the phone, the work we are doing in the ROW will not require any road closures. There is no TCP required, the contractor will take adequate measure to ensure they are not impeding the public way.

Please let me know if you need anything else.

Thank you,

A handwritten signature in blue ink, appearing to read "Chris Myers".

Chris Myers  
Principal  
SHIFT Companies

C:\Users\ruebe\_000\Documents\AAA - Shift Companies\AAA - Crown Castle\Houston\Cinco Ranch Expansion\Shifts\CCR-35 - Project - 12.14.15.rvt



**PROJECT NAME:** CINCO RANCH EXPANSION  
**PROJECT ADDRESS:** FRY RD AND MORNING WILLOW DR  
**PROJECT TYPE:** METAL SLIMLINE POLE  
**HUB AREA:** CINCO RANCH - HGCW  
**NODE #(s):** **CCR-35**  
**COORDINATES:** LAT: 29.732709, LONG: -95.738543

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**FORT BEND COUNTY ENGINEER**  
 ENGINEER: *Richard H. Stokes, P.E.*  
 FOR: Richard H. Stokes, P.E.  
 DATE: 10/11/16  
 THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.  
 APPROVED: *[Signature]*  
 Development Coordinator  
 DATE: 10/11/16

TEAM MEMBER'S REVIEW	REVIEWED/DATE
R.F. ENGINEERING	
PRODUCT MANAGEMENT	
NETWORK REAL ESTATE TEAM	
UTILITY TEAM	
IMPLEMENTATION	
OPERATIONS	

PROJECT TEAM	
<b>ARCHITECT</b>	<b>OWNER INFO</b>
Company: SHIFT CONSULTING Address: 7333 E. MONTE VISTA RD SCOTTSDALE, AZ 85257 Phone Number: 480.264.0829 Fax Number: 480.264.0163 Contact: CHRIS MYERS	Company: CROWN CASTLE Address: 1220 AUGUSTA DR HOUSTON, TX 77057 Phone #: 817.449.2113 Email: BARRY.CAMP@CROWNCASTLE.COM Contact: BARRY CAMPAU
<b>STRUCTURAL</b>	<b>RF ENGINEER</b>
Company: T.B.D. Address: Phone Number: Fax Number: Contact:	Company: CROWN CASTLE Address: 1220 AUGUSTA DR HOUSTON, TX 77057 Phone Number: Fax Number: Contact:
<b>FIBER ENGINEERING</b>	
Company: TDC2 Address: 710 EAST PARK BLVD, SUITE 110 PLANO, TX 75074 Phone: 972.423.9080 Email: scott@tdc2.com Contact: SCOTT CRUM	

PROJECT SUMMARY	
<b>PROJECT NAME:</b> CINCO RANCH EXPANSION	<b>APPLICANT:</b> CROWN CASTLE 1220 AUGUSTA DR HOUSTON, TX 77057 CONTACT: BARRY CAMPAU
<b>PROJECT AREA:</b> CINCO RANCH - HGCW	<b>CODES:</b> 2009 INTERNATIONAL BUILDING CODE (IBC) 2006 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2006 NATIONAL ELECTRICAL CODE (NEC) 2006 NATIONAL ELECTRICAL SAFETY CODE (NESC)
<b>JURISDICTION:</b> FORT BEND COUNTY ENGINEERING DEPT. 1124 BLUME RD ROSENBERG, TX 77471 PH: 281.633.7500 CONTACT: JOHNNY ORTEGA	<b>PLUMBING REQUIREMENTS:</b> FACILITY HAS NO PLUMBING.
<b>HANDICAPPED REQUIREMENTS:</b> -FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. -HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED.	<b>POWER COMPANY:</b> CENTERPOINT ENERGY 5431 HIGHWAY BLVD KATY, TX 77494 PH: 281.520.6275 CONTACT: KEN CORTEZ

NOTE: NOT ALL SITES ARE INCLUDED IN THIS SET. SEE NODE #S ABOVE FOR SITES THAT ARE IN THIS SET.



**PROJECT DESCRIPTION**

CROWN CASTLE PROPOSES TO PROVIDE AN ENHANCED RESIDENTIAL WIRELESS COMMUNICATIONS SYSTEM FOR THE KATY, TEXAS AREA. THE SYSTEM WILL IMPROVE CELLULAR COMMUNICATIONS AND INCREASE CALL CAPACITY. THE NETWORK AND ASSOCIATED EQUIPMENT HAVE BEEN DESIGNED TO MINIMIZE VISUAL IMPACTS IN URBAN SETTINGS. THE PROPOSED SYSTEM WILL PROVIDE A CELLULAR NETWORK THAT CAN BE UTILIZED SIMULTANEOUSLY BY DIFFERENT LICENSED TELECOMMUNICATIONS COMPANIES.

A SUBJECT NODE WILL CONSIST OF NEW METAL SLIMLINE POLE. THEY WILL HAVE GROUND MOUNTED RADIO EQUIPMENT INSIDE A CABINET WITH A METER AND DISCONNECT ATTACHED. THERE WILL ALSO BE POLE-TOP ANTENNAS CONCEALED IN SHROUDS.



CROWN CASTLE  
 800 E. JOHNS CARPENTER Pkwy  
 SUITE 1000  
 IRVING, TX 76062

RECORD DRAWINGS ISSUE DATE: 10/18/16  
 RECORD DRAWING DRAFTING ONLY



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RELEASE	
DATE	SUBMITTAL
8/20/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	DESCRIPTION
10/18/16		CITY COMMENTS

**PROJECT NAME**  
 CINCO RANCH EXPANSION

**NODE ADDRESS**  
 NODE #: CCR-35

FRY RD AND MORNING WILLOW DR

**HUB AREA**  
 CINCO RANCH - HGCW

**SHIFT JOB NUMBER** 150602 **IN HOUSE**  **CHECKED BY:** CR

**SHEET TITLE**  
 TITLE SHEET

SHEET NUMBER	PAGE
T1.1	1 OF 14

PLOT SCALE: 1" = 24'00"; 1/2" = 11'0"

10/17/2016 2:23:36 PM

PLAN CHECK #



**Cinco Ranch Expansion**  
700 RRH Specifications

Mechanical	
Frequency Band	813 (750AC)
Technology	LTE FDD
RF Output Power	240W/420W (5W configurable)
Operational Range	DL 746-756 MHz UL 772-782 MHz
Instantaneous BW	10 MHz (1 Carrier)
RF Configuration	2T2R, 2T4R, 4T4R
Interfaces	AWG 3.5 RSMA port 2 Integrated Smart Base Tees 1 port external alarm (A4) Tx & Rx monitor ports
Power	-48 VDC
Environmental Conditions	IP65
Connectors	DIN 716

Physical	
Dimensions	21.5 x 12 x 9 in
Weight	87 lbs
Mounting options	Pole/Wall
Connector Location	Bottom



**Cinco Ranch Expansion**  
FCS RRH Specifications (Future)

Mechanical	
Frequency Band	82 & B25 (190C)
Technology	LTE FDD
RF Output Power	240W/420W (5W configurable)
Operational Range	DL 1920-1960 MHz UL 1850-1915 MHz
Instantaneous BW	65 MHz (4 Carriers)
RF Configuration	2T2R, 2T4R, 4T4R
Interfaces	2 CPRI ports (rate 7) AWG 3.5 RSMA port 2 Integrated Smart Base Tees 1 port external alarm (A4) Tx & Rx monitor ports 2 port hot-swappable power connector
Power	-48 VDC
Environmental Conditions	IP65
Connectors	DIN 716

Physical	
Dimensions	21.2 x 12 x 7.4 in
Weight	83 lbs
Mounting options	Pole/Wall
Connector Location	Bottom

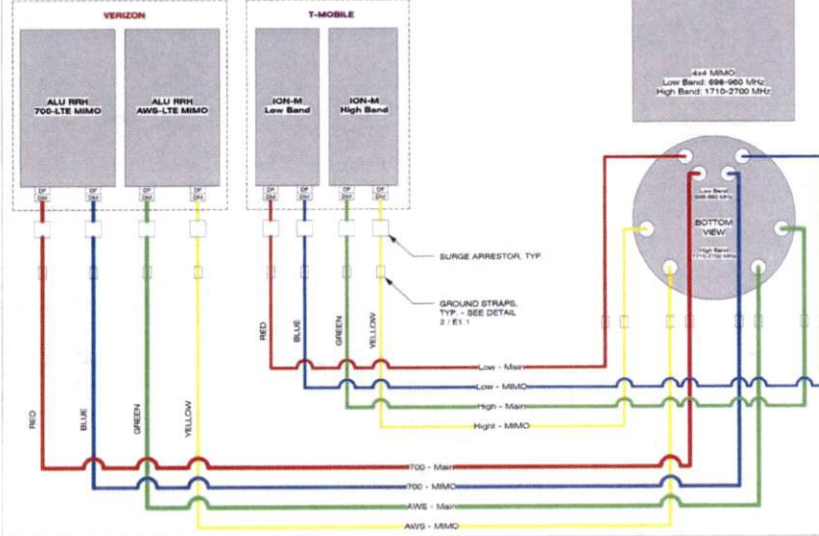


**Cinco Ranch Expansion**  
AWS RRH Specifications

Mechanical	
Frequency Band	84 (210C)
Technology	LTE FDD
RF Output Power	240W/420W (5W configurable)
Operational Range	DL 2110-2130 MHz UL 1980-1780 MHz
Instantaneous BW	70 MHz
RF Configuration	2T2R, 2T4R, 4T4R
Interfaces	AWG 3.5 RSMA port 2 Integrated Smart Base Tees 1 port external alarm (A4)
Power	-48 VDC
Environmental Conditions	IP65
Connectors	Mini DIN 4.3-10

Physical	
Dimensions	30 x 12 x 7.7 in
Weight	78 lbs
Mounting options	Pole/Wall
Connector Location	Bottom



GALTRONICS  
TRI-SECTOR P8160C DMR  
ANTENNA

4x4 MIMO  
Low Band 698-960 MHz  
High Band 1710-2700 MHz



CROWN CASTLE  
800 E. JOHN CARPENTER Fwy  
SUITE 300  
IRVING, TX 75062

RECORD DRAWINGS ISSUE DATE: 10/18/16



Shift Companies, LLC  
1313 E. WIRTH AVE. SUITE 100  
KOTWICHE, MISSISSIPPI  
39201  
(601) 364-5511

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RADIO SPECIFICATIONS

SCALE: N.T.S. 10 WIRING DIAGRAM SCALE: N.T.S. 18

Amphenol ANTENNA SOLUTIONS 696-960 / 696-960 / 1695-2700 / 1695-2700 MHz

2C2UT360X12F-yy0  
The antenna is a connector located at the station, with a standard cable and connector.

- Flexible design configuration with 4 connectors
- Ideal for Smart Base (SB) applications
- Available with 4 1/2" or 5 1/2" or 7 1/2" DIN connectors
- Three unique mounting options
- Can be painted to blend in with a surrounding structure

Connector Description

Low Band #1 and #2	High Band #1 and #2
Frequency Bands MHz: 26, 44, 70, 140, 190, 240, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000, 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 1190, 1200, 1210, 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1340, 1350, 1360, 1370, 1380, 1390, 1400, 1410, 1420, 1430, 1440, 1450, 1460, 1470, 1480, 1490, 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720, 1730, 1740, 1750, 1760, 1770, 1780, 1790, 1800, 1810, 1820, 1830, 1840, 1850, 1860, 1870, 1880, 1890, 1900, 1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020, 2030, 2040, 2050, 2060, 2070, 2080, 2090, 2100, 2110, 2120, 2130, 2140, 2150, 2160, 2170, 2180, 2190, 2200, 2210, 2220, 2230, 2240, 2250, 2260, 2270, 2280, 2290, 2300, 2310, 2320, 2330, 2340, 2350, 2360, 2370, 2380, 2390, 2400, 2410, 2420, 2430, 2440, 2450, 2460, 2470, 2480, 2490, 2500, 2510, 2520, 2530, 2540, 2550, 2560, 2570, 2580, 2590, 2600, 2610, 2620, 2630, 2640, 2650, 2660, 2670, 2680, 2690, 2700, 2710, 2720, 2730, 2740, 2750, 2760, 2770, 2780, 2790, 2800, 2810, 2820, 2830, 2840, 2850, 2860, 2870, 2880, 2890, 2900, 2910, 2920, 2930, 2940, 2950, 2960, 2970, 2980, 2990, 3000, 3010, 3020, 3030, 3040, 3050, 3060, 3070, 3080, 3090, 3100, 3110, 3120, 3130, 3140, 3150, 3160, 3170, 3180, 3190, 3200, 3210, 3220, 3230, 3240, 3250, 3260, 3270, 3280, 3290, 3300, 3310, 3320, 3330, 3340, 3350, 3360, 3370, 3380, 3390, 3400, 3410, 3420, 3430, 3440, 3450, 3460, 3470, 3480, 3490, 3500, 3510, 3520, 3530, 3540, 3550, 3560, 3570, 3580, 3590, 3600, 3610, 3620, 3630, 3640, 3650, 3660, 3670, 3680, 3690, 3700, 3710, 3720, 3730, 3740, 3750, 3760, 3770, 3780, 3790, 3800, 3810, 3820, 3830, 3840, 3850, 3860, 3870, 3880, 3890, 3900, 3910, 3920, 3930, 3940, 3950, 3960, 3970, 3980, 3990, 4000, 4010, 4020, 4030, 4040, 4050, 4060, 4070, 4080, 4090, 4100, 4110, 4120, 4130, 4140, 4150, 4160, 4170, 4180, 4190, 4200, 4210, 4220, 4230, 4240, 4250, 4260, 4270, 4280, 4290, 4300, 4310, 4320, 4330, 4340, 4350, 4360, 4370, 4380, 4390, 4400, 4410, 4420, 4430, 4440, 4450, 4460, 4470, 4480, 4490, 4500, 4510, 4520, 4530, 4540, 4550, 4560, 4570, 4580, 4590, 4600, 4610, 4620, 4630, 4640, 4650, 4660, 4670, 4680, 4690, 4700, 4710, 4720, 4730, 4740, 4750, 4760, 4770, 4780, 4790, 4800, 4810, 4820, 4830, 4840, 4850, 4860, 4870, 4880, 4890, 4900, 4910, 4920, 4930, 4940, 4950, 4960, 4970, 4980, 4990, 5000, 5010, 5020, 5030, 5040, 5050, 5060, 5070, 5080, 5090, 5100, 5110, 5120, 5130, 5140, 5150, 5160, 5170, 5180, 5190, 5200, 5210, 5220, 5230, 5240, 5250, 5260, 5270, 5280, 5290, 5300, 5310, 5320, 5330, 5340, 5350, 5360, 5370, 5380, 5390, 5400, 5410, 5420, 5430, 5440, 5450, 5460, 5470, 5480, 5490, 5500, 5510, 5520, 5530, 5540, 5550, 5560, 5570, 5580, 5590, 5600, 5610, 5620, 5630, 5640, 5650, 5660, 5670, 5680, 5690, 5700, 5710, 5720, 5730, 5740, 5750, 5760, 5770, 5780, 5790, 5800, 5810, 5820, 5830, 5840, 5850, 5860, 5870, 5880, 5890, 5900, 5910, 5920, 5930, 5940, 5950, 5960, 5970, 5980, 5990, 6000, 6010, 6020, 6030, 6040, 6050, 6060, 6070, 6080, 6090, 6100, 6110, 6120, 6130, 6140, 6150, 6160, 6170, 6180, 6190, 6200, 6210, 6220, 6230, 6240, 6250, 6260, 6270, 6280, 6290, 6300, 6310, 6320, 6330, 6340, 6350, 6360, 6370, 6380, 6390, 6400, 6410, 6420, 6430, 6440, 6450, 6460, 6470, 6480, 6490, 6500, 6510, 6520, 6530, 6540, 6550, 6560, 6570, 6580, 6590, 6600, 6610, 6620, 6630, 6640, 6650, 6660, 6670, 6680, 6690, 6700, 6710, 6720, 6730, 6740, 6750, 6760, 6770, 6780, 6790, 6800, 6810, 6820, 6830, 6840, 6850, 6860, 6870, 6880, 6890, 6900, 6910, 6920, 6930, 6940, 6950, 6960, 6970, 6980, 6990, 7000, 7010, 7020, 7030, 7040, 7050, 7060, 7070, 7080, 7090, 7100, 7110, 7120, 7130, 7140, 7150, 7160, 7170, 7180, 7190, 7200, 7210, 7220, 7230, 7240, 7250, 7260, 7270, 7280, 7290, 7300, 7310, 7320, 7330, 7340, 7350, 7360, 7370, 7380, 7390, 7400, 7410, 7420, 7430, 7440, 7450, 7460, 7470, 7480, 7490, 7500, 7510, 7520, 7530, 7540, 7550, 7560, 7570, 7580, 7590, 7600, 7610, 7620, 7630, 7640, 7650, 7660, 7670, 7680, 7690, 7700, 7710, 7720, 7730, 7740, 7750, 7760, 7770, 7780, 7790, 7800, 7810, 7820, 7830, 7840, 7850, 7860, 7870, 7880, 7890, 7900, 7910, 7920, 7930, 7940, 7950, 7960, 7970, 7980, 7990, 8000, 8010, 8020, 8030, 8040, 8050, 8060, 8070, 8080, 8090, 8100, 8110, 8120, 8130, 8140, 8150, 8160, 8170, 8180, 8190, 8200, 8210, 8220, 8230, 8240, 8250, 8260, 8270, 8280, 8290, 8300, 8310, 8320, 8330, 8340, 8350, 8360, 8370, 8380, 8390, 8400, 8410, 8420, 8430, 8440, 8450, 8460, 8470, 8480, 8490, 8500, 8510, 8520, 8530, 8540, 8550, 8560, 8570, 8580, 8590, 8600, 8610, 8620, 8630, 8640, 8650, 8660, 8670, 8680, 8690, 8700, 8710, 8720, 8730, 8740, 8750, 8760, 8770, 8780, 8790, 8800, 8810, 8820, 8830, 8840, 8850, 8860, 8870, 8880, 8890, 8900, 8910, 8920, 8930, 8940, 8950, 8960, 8970, 8980, 8990, 9000, 9010, 9020, 9030, 9040, 9050, 9060, 9070, 9080, 9090, 9100, 9110, 9120, 9130, 9140, 9150, 9160, 9170, 9180, 9190, 9200, 9210, 9220, 9230, 9240, 9250, 9260, 9270, 9280, 9290, 9300, 9310, 9320, 9330, 9340, 9350, 9360, 9370, 9380, 9390, 9400, 9410, 9420, 9430, 9440, 9450, 9460, 9470, 9480, 9490, 9500, 9510, 9520, 9530, 9540, 9550, 9560, 9570, 9580, 9590, 9600, 9610, 9620, 9630, 9640, 9650, 9660, 9670, 9680, 9690, 9700, 9710, 9720, 9730, 9740, 9750, 9760, 9770, 9780, 9790, 9800, 9810, 9820, 9830, 9840, 9850, 9860, 9870, 9880, 9890, 9900, 9910, 9920, 9930, 9940, 9950, 9960, 9970, 9980, 9990, 10000, 10010, 10020, 10030, 10040, 10050, 10060, 10070, 10080, 10090, 10100, 10110, 10120, 10130, 10140, 10150, 10160, 10170, 10180, 10190, 10200, 10210, 10220, 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13090, 13100, 13110, 13120, 13130, 13140, 13150, 13160, 13170, 13180, 13190, 13200, 13210, 13220, 13230, 13240, 13250, 13260, 13270, 13280, 13290, 13300, 13310, 13320, 13330, 13340, 13350, 13360, 13370, 13380, 13390, 13400, 13410, 13420, 13430, 13440, 13450, 13460, 13470, 13480, 13490, 13500, 13510, 13520, 13530, 13540, 13550, 13560, 13570, 13580, 13590, 13600, 13610, 13620, 13630, 13640, 13650, 13660, 13670, 13680, 13690, 13700, 13710, 13720, 13730, 13740, 13750, 13760, 13770, 13780, 13790, 13800, 13810, 13820, 13830, 13840, 13850, 13860, 13870, 13880, 13890, 13900, 13910, 13920, 13930, 13940, 13950, 13960, 13970, 13980, 13990, 14000, 14010, 14020, 14030, 14040, 14050, 14060, 14070, 14080, 14090, 14100, 14110, 14120, 14130, 14140, 14150, 14160, 14170, 14180, 14190, 14200, 14210, 14220, 14230, 14240, 14250, 14260, 14270, 14280, 14290, 14300, 14310, 14320, 14330, 14340, 14350, 14360, 14370, 14380, 14390, 14400, 14410, 14420, 14430, 14440, 14450, 14460, 14470, 14480, 14490, 14500, 14510, 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NODE AERIAL PLAN



SITE PHOTO (EXISTING)

NTS

**SUBJECT POLE:** CCR-35

**GPS COORDINATES:**

**LAT:** 29.73708

**LONG:** -96.788543

**POLE TYPE:** METAL DIAMINE POLE

**POLE ID #:**

**UPPER ANTENNA RAD CENTER:** 32' - 0" A.F.G.

**LOWER ANTENNA RAD CENTER:** 30' - 0" A.F.G.

**APPROVED:** *[Signature]*  
Developer Coordinator

**DATE:** 11/16



**CROWN CASTLE**  
800 E. JOHN CARPENTER Pkwy  
SUITE 300  
IRVING, TX 75062

RECORD DRAWINGS ISSUE DATE: 10/16/16



**SHIFT Companies, LLC**  
2221 ROSE BERRY BLVD  
SCOTTSDALE, ARIZONA 85251  
PH: 480.294.9825  
WWW.SHIFT.COM

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RELEASE	
DATE	SUBMITTAL
6/28/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	COMMENT
1	10/18/16	CITY COMMENTS

**PROJECT NAME**  
CINCO RANCH EXPANSION

**NODE ADDRESS**  
NODE #:CCR-35

FRY RD AND MORNING WILLOW DR

**HUB AREA**  
CINCO RANCH - HGCV

**SHIFT JOB NUMBER** 150802 **IN HOUSE**

**SHEET TITLE**  
AERIAL

**SHEET NUMBER** A1.0 **PAGE** 4 OF 14

**PLOT SCALE:** 1" @ 24'x36" 1:2 @ 11'x17"

PLAN CHECK #

CASE #

KEYNOTE	DESCRIPTION	DETAIL
A01	PROPOSED CROWN CASTLE OMN ANTENNA	16'D1.1
A02	PROPOSED CROWN CASTLE 2" U.S. CONDUIT (APPROXIMATE LOCATION F.V.)	2'0"1.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNIT (RSIDE EQUIPMENT CABINET)	16'D1.1
A04	PROPOSED NEW METAL SULAINE POLE	30'D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER VAULT	5'0"1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION BRANDE	20'D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	16'D1.1
A08	PROPOSED CROWN CASTLE PIER FOUNDATION	12'0"1.1
A09	PROPOSED ELECTRICAL HAND HOLE	

KEYNOTE	DESCRIPTION	DETAIL
ED1	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	16'D1.1
U01	PROPOSED 2" CROWN CASTLE U.G. POWER CONDUIT (APPROXIMATE LOCATION F.V.)	2'0"1.1 & 6'0"1.2
U02	PROPOSED CROWN CASTLE 2" U.S. FIBER CONDUIT BY OTHERS (APPROXIMATE LOCATION F.V.)	2'0"1.1 & 6'0"1.2



NOTES:  
 1. ANY DAMAGE TO EXISTING CURBS, SIDEWALKS AND ROADWAY DURING CONSTRUCTION TO BE REPAIRED OR REPLACED.  
 2. EXISTING VEGETATION DAMAGED IN CONSTRUCTION TO BE REPLACED BY SAME SPECIES.

- GENERAL NOTES**
1. PAINT PROPOSED GROUND EQUIPMENT A NATURAL EARTH COLOR OR AS APPROVED BY CITY.
  2. CONTRACTOR TO FIELD LOCATE EXIST UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
  3. EX. LANDSCAPE PLANTINGS AND DECORATIVE HANDICAPES DISTURBED OR DESTROYED AS A RESULT OF CONSTRUCTION SHALL BE REPLACED WITH A LIKE SIZE AND SPECIE.
  4. CONTRACTOR TO HAND LOCATE EX. IRIGATION PRIOR TO EXCAVATION.
  5. SITE PLAN IS A DIAGRAMMATIC REPRESENTATION ONLY. VERIFY ALL DIMENSIONS.
  6. VERIFY ALL PROPERTY LINE INFORMATION WITH AVAILABLE R.O.W. DATA.
  7. EXIST. UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY (AS PROVIDED BY LOCAL UTILITIES).

**SUBJECT POLE:** CCR-35

**GPS COORDINATES:**

**LAT:** 29.75708

**LONG:** -95.738543

**POLE TYPE:** METAL SULAINE POLE

**POLE ID #:**

**UPPER ANTENNA RAD CENTER:** 32' - 0" A.F.D.

**LOWER ANTENNA RAD CENTER:** 30' - 0" A.F.D.

**SUBJECT POLE IS LOCATED IN:** FORT BEND COUNTY R.O.W.

**APPROVED:** [Signature]  
Development Coordinator

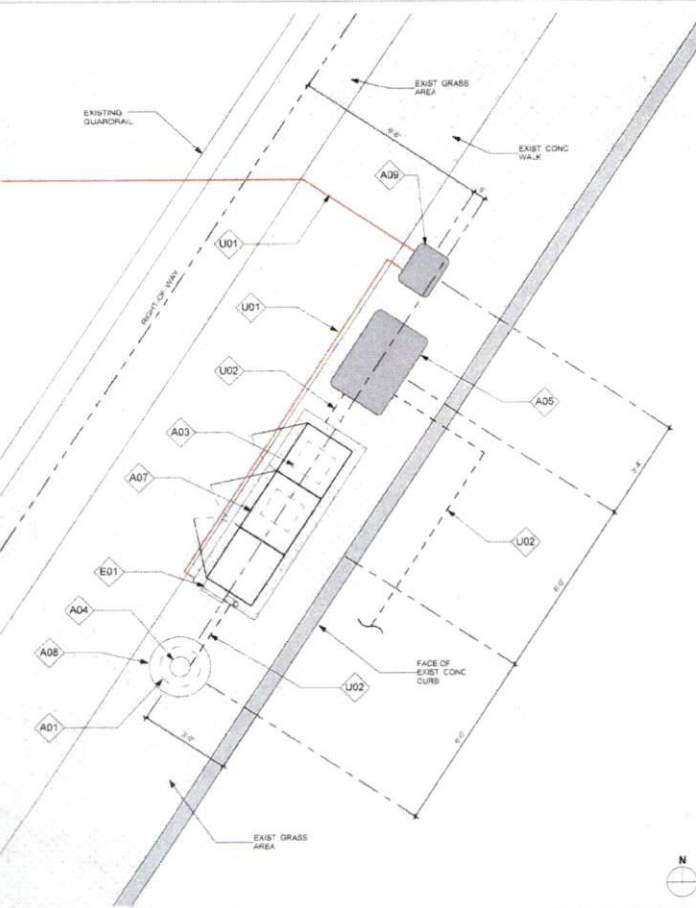
**DATE:** 11/1/16

**CROWN CASTLE**  
 600 E. JOHN GARDNER FVW  
 SUITE 300  
 WYOMING, TX 75062

RECORD DRAWINGS - ISSUE DATE: 10-18-16

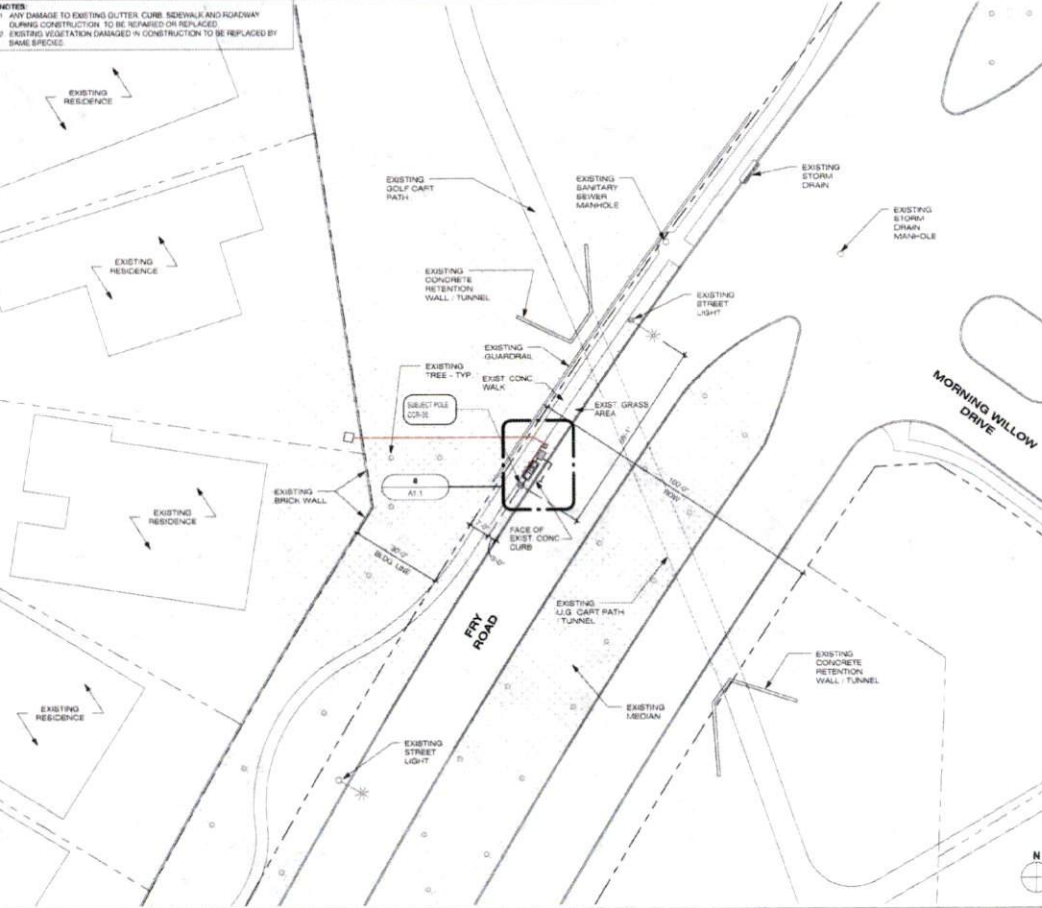
**Shift Companies, LLC**  
 7331 E. HOUSTON VISTA ROAD  
 SCOTTSDALE, ARIZONA 85257  
 PH: 480.246.8859  
 FAX: 480.246.0553

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EQUIPMENT AND ANTENNA PLAN

1/2" = 1'-0" 8



OVERALL SITE PLAN

1" = 20'-0" 20

RELEASE	DATE	SUBMITTAL
	6/03/16	1ST CITY SUBMITTAL
	10/18/16	2ND CITY SUBMITTAL

REVISIONS	NO.	DATE	COMMENT
	10	10-18-16	CITY COMMENTS

**PROJECT NAME:** CINCO RANCH EXPANSION

**NODE ADDRESS:** NODE #CCR-35

**HUB AREA:** CINCO RANCH - HGCW

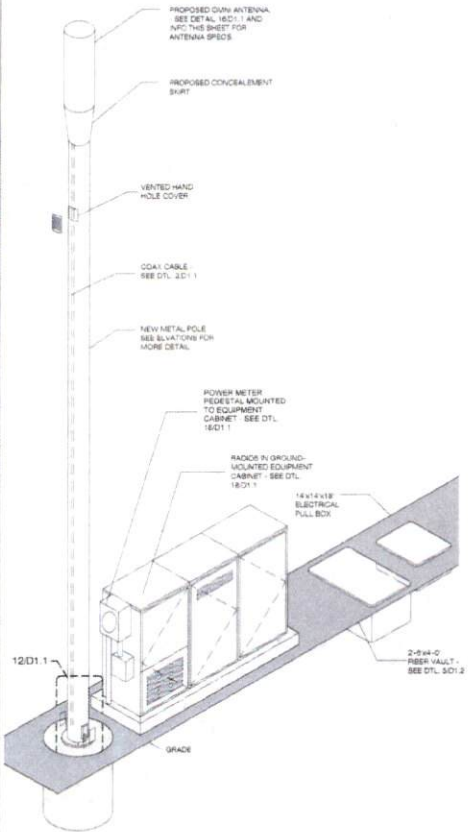
**SHIFT JOB NUMBER:** 150602

**SHEET TITLE:** SITE PLAN, EQUIPMENT AND ANTENNA PLAN

SHEET NUMBER	PAGE
A1.1	5 OF 14

PLOT SCALE: 1/16" = 20'-0"; 1/8" = 11'-0"

NOTE  
ISO IS SCHEMATIC IN NATURE. FIBER VAULT, POWER METER PEDESTAL  
AND GROUND-MOUNTED RADIO EQUIPMENT PEDESTAL CAN BE  
RECONFIGURED TO SUIT PROJECT LOCATION



METAL POLE ISOMETRIC SCALE: SCALE: N.T.S. 4

KEYNOTE LEGEND		
KEYNOTE	DESCRIPTION	DETAIL NUMBER
A01	PROPOSED CROWN CASTLE OMN ANTENNA	16D1.1
A02	PROPOSED CROWN CASTLE 2' U.S. CONDUIT (APPROXIMATE LOCATION, P.V.)	2D1.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO LIMITS (RICE) EQUIPMENT CABINET	16D1.1
A04	PROPOSED NEW METAL SLALUM POLE	2D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER VAULT	5D1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	2D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	16D1.1
A08	PROPOSED CROWN CASTLE POLE FOUNDATION	12D1.1
A09	PROPOSED ELECTRICAL HAND HOLE	
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (SEE DETAILS PANEL AND RECONNECT)	16D1.1

MODEL	AMPENDL - 1047306131910
LENGTH	48"
WIDTH	14.6" DIA
DEPTH	N/A
WEIGHT	38.1 LBS

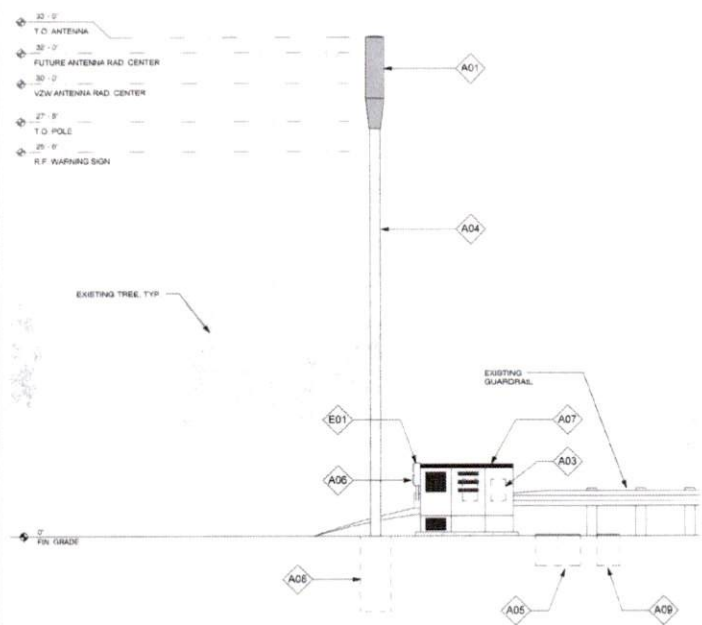
PROPOSED PANEL ANTENNA SPECS

PROPOSED POLE WIDTH	8"Ø
PROPOSED POLE HEIGHT	27' - 0"
	(+ 4' ANTENNA AND 1'-0" ANTENNA MOUNT)

POLE INFO

APPROVED:   
Development Coordinator  
DATE: 11/16/16



POLE ELEVATION (PROPOSED) SCALE: 1/4" = 1'-0" 20



CROWN CASTLE  
800 E. JOHN CARPENTER Pkwy  
SUITE 300  
IRVING, TX 75062

RECORD DRAWING ISSUE DATE: 10/16/16



Shift Companies, LLC  
7317 E. WINDY HILLS ROAD  
SCOTTSDALE, ARIZONA 85251  
PH: 480.364.8500  
FAX: 480.364.8503

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RELEASE	
DATE	SUBMITTAL
09/29/16	1ST CITY SUBMITTAL
10/16/16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	DESCRIPTION
	10/16/16	CITY COMMENTS

PROJECT NAME  
CINCO RANCH EXPANSION

NODE ADDRESS

NODE #:**CCR-35**  
FRY RD AND MORNING WILLOW DR

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER 150602  
DRAWN BY: BA  
CHECKED BY: CM

SHEET TITLE

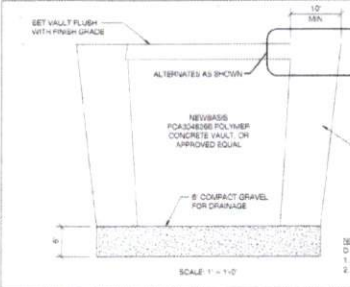
POLE ELEVATION, PROPOSED

SHEET NUMBER PAGE

A1.2 6 OF 14

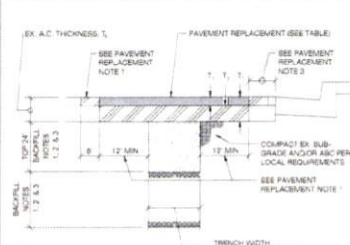
PLOT SCALE: 1/1" @ 24"X36" 1:2 @ 11"X17"



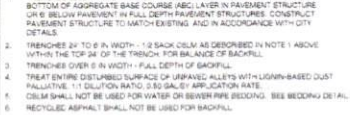


VAULT INSTALLATION SCALE: 1" = 1'-0" 6

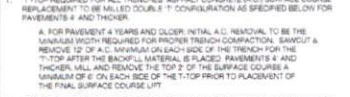
EXISTING PAVEMENT THICKNESS, T <sub>1</sub>	ASPHALT CONCRETE (A/C) PAVEMENT REPLACEMENT	TOTAL THICKNESS, T <sub>2</sub>
T <sub>1</sub> ≥ 3	3" MINIMUM A/C BASE COURSE OR SURFACE COURSE 1	3" MINIMUM
T <sub>1</sub> = 2	2" MINIMUM A/C BASE COURSE OR SURFACE COURSE 1	3" MINIMUM
T <sub>1</sub> = 1	2" MINIMUM A/C BASE COURSE OR SURFACE COURSE 1	3" MINIMUM



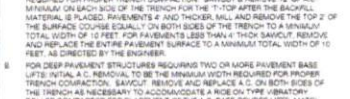
POWER TRENCH SCALE: 3/4" = 1'-0" 6



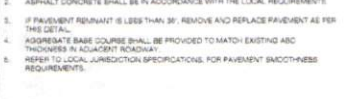
BACKFILL NOTES 1



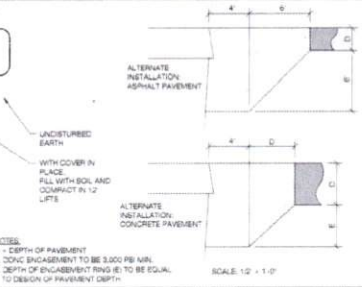
PAVEMENT REPLACEMENT NOTES 2



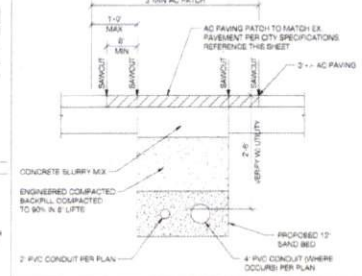
CONCRETE JOINT DETAILS 3



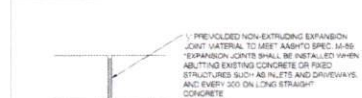
TRENCH AND PATCHING REQUIREMENTS SCALE: 1" = 1'-0" 4



CONCRETE JOINT DETAILS SCALE: 1 1/2" = 1'-0" 4



SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 6



MINIMUM UTILITY SEPARATION REQUIREMENTS SCALE: 1" = 1'-0" 15



SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 16



NODE IDENTIFICATION SIGNAGE SCALE: 1" = 1'-0" 20



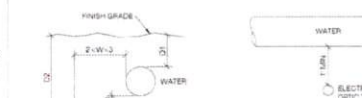
SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 16



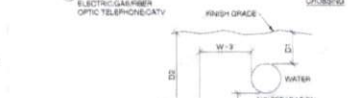
SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 16



NODE IDENTIFICATION SIGNAGE SCALE: 1" = 1'-0" 20



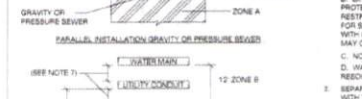
SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 16



NODE IDENTIFICATION SIGNAGE SCALE: 1" = 1'-0" 20



SANITARY SEWER SEPARATION / PROTECTION FROM WATER & UTILITIES SCALE: 1" = 1'-0" 16



NODE IDENTIFICATION SIGNAGE SCALE: 1" = 1'-0" 20



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



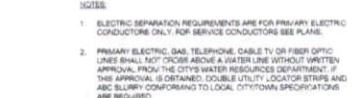
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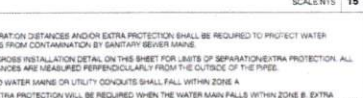
COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



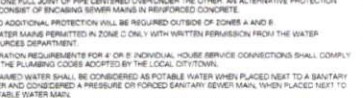
COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



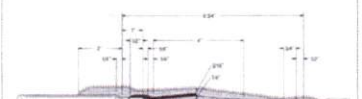
COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



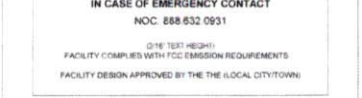
COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18



COAX WATERPROOFING - FUSION TAPE TYPE SCALE: 1" = 1'-0" 19



COAX WATERPROOFING - JMA TYPE SCALE: 1" = 1'-0" 18

APPROVED: *[Signature]*  
Development Coordinator

DATE: \_\_\_\_\_

**CROWN CASTLE**  
CROWN CASTLE  
800 E. JOHN CARPENTER Fwy  
SUITE 500  
IRVING, TX 75062

RECORD DRAWING ISSUE DATE: 10/16/16

**SHIFT**  
Shift Companies, LLC  
11111 HWY 175 SOUTH  
SCOTTSDALE, ARIZONA 85257  
Tel: 480.764.8829  
Fax: 480.764.8833

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RELEASE DATE	SUBMITTAL
8/23/16	1ST CITY SUBMITTAL
10/16/16	2ND CITY SUBMITTAL

REVISION NO.	DATE	COMMENT
1	10/16/16	CITY COMMENTS

PROJECT NAME
CINCO RANCH EXPANSION

H/S AREA
CINCO RANCH - HGCW

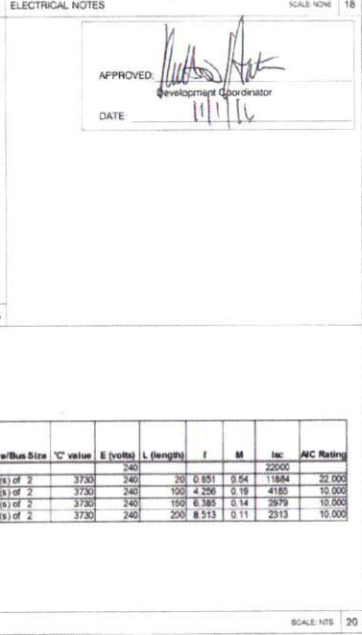
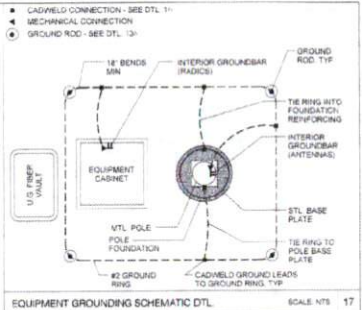
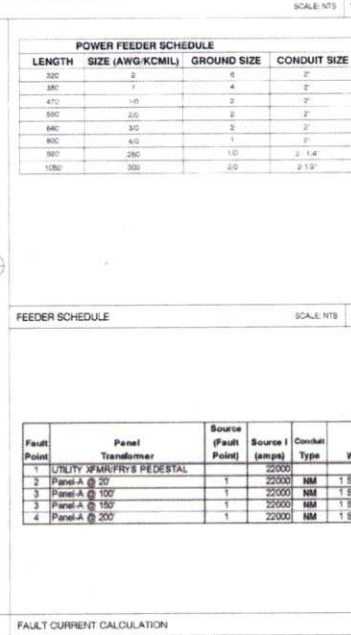
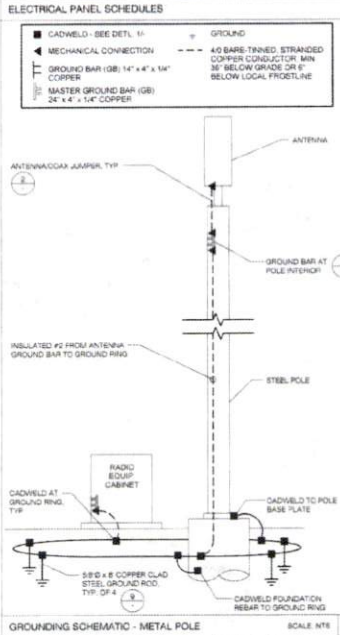
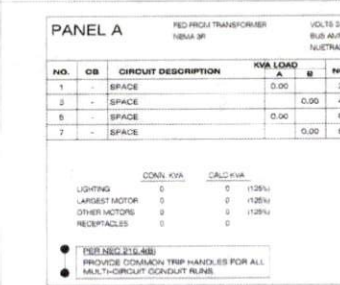
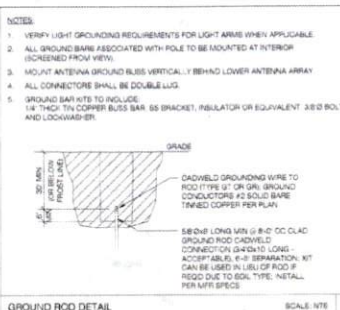
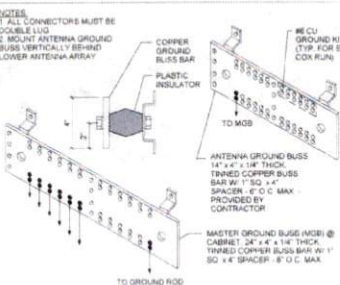
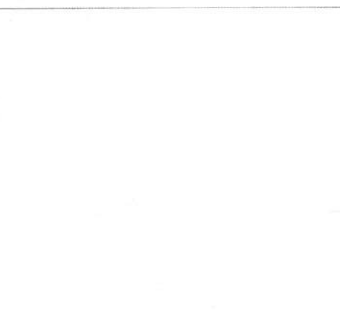
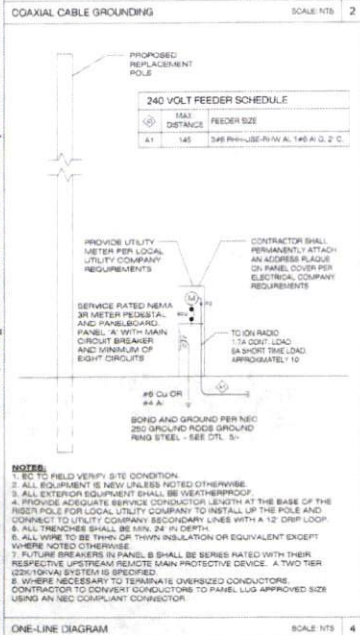
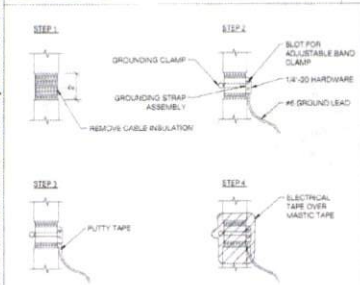
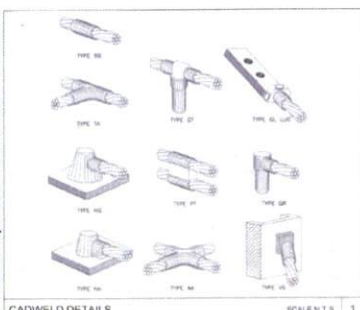
SHIFT JOB NUMBER	IN HOUSE
150602	DRAWN BY: HA CHECKED BY: GM

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER	PAGE
D1.2	8 OF 14

PLOT SCALE: 1:1 @ 24"X36"	1:2 @ 11"X17"





**CROWN CASTLE**  
 CROWN CASTLE  
 605 E. JOHN CARPENTER Pkwy.  
 SUITE 300  
 IRVING, TX 75062

ISSUE DATE: 10/14/16

**SHIFT**  
 Shift Companies, LLC  
 13111 HOUSTON ROAD  
 SUITE 1000  
 HOUSTON, TX 77034  
 (281) 416-3333

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**RELEASE**

DATE	SUBMITTAL
03/16/16	1ST CITY SUBMITTAL
10/14/16	2ND CITY SUBMITTAL

**REVISIONS**

NO.	DATE	COMMENT
1	10/14/16	CITY COMMENTS

**PROJECT NAME**  
 CINCO RANCH EXPANSION

**HUB AREA**  
 CINCO RANCH - HGCW

**SHIFT JOB NUMBER** 150602  
**IN HOUSE** CROWN CASTLE  
 CHECKED BY: SA

**SHEET TITLE**  
 ELECTRICAL DETAILS

**SHEET NUMBER** E1.1  
**PAGE** 10 OF 14  
**PLOT SCALE:** 1/8" = 2'-0" (24x36) 1/2" = 11'-0"

PLAN CHECK #  
 CASE #