



REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

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

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

Permit No: 2016-10710

Applicant: Crown Castle NG General LLC/Shift Companies

Job Location Site: SOUTH OF S.E.C. OF PEEK RD AND EMILY PARK LN, KATY, TX 77494

Bond No. [REDACTED] **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 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 Meyers, 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
for County Engineer

Date Recorded 12-09-16 Comm. Court No. 16K

By: N/A
Drainage District Engineer/Manager

Clerk of Commissioners Court
By: Janet Welles
Deputy



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

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

- Right of Way Permit**
 Commercial Driveway Permit

Permit No: 2016-10710

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | a. Name of road, street, and/or drainage ditch affected. |
| <input checked="" type="checkbox"/> | b. Vicinity map showing course of directions |
| <input checked="" type="checkbox"/> | c. Plans and specifications |

(2) BOND:

- | | | | |
|-------------------------------------|--|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> | County Attorney, approval when applicable. | | |
| <input checked="" type="checkbox"/> | Perpetual bond currently posted. | Bond No: <u> </u> | Amount: <u>\$50,000.00</u> |
| <input type="checkbox"/> | Performance bond submitted. | Bond No: <u> </u> | Amount: <u> </u> |
| <input type="checkbox"/> | Cashier's Check | Check No: <u> </u> | Amount: <u> </u> |

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.

Cheryl O. Ay
Permit Administrator

11/29/16
Date



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



CROWN CASTLE

PROJECT NAME: CINCO RANCH EXPANSION
PROJECT ADDRESS: PEEK RD AND EMILY PARK LN

PROJECT TYPE: METAL SLIMLINE POLE
HUB AREA: CINCO RANCH - HGCW
NODE #(s): **CCR-30**
COORDINATES: LAT: 29.70623, LONG: -95.76118

PROJECT TEAM	
ARCHITECT	OWNER INFO
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 #: 817.449.3113 Email: BARRY.CAMPALU@CROWNCASTLE.COM Contact: BARRY CAMPALU
STRUCTURAL	RF ENGINEER
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:
FIBER ENGINEERING	
Company: TDC2 Address: 710 EAST PARK BLVD. SUITE 110 PLANO, TX 75074 Phone: 972.423.9080 Email: saram@tdc2.com Contact: SCOTT CRUM	

PROJECT SUMMARY	
PROJECT NAME: CINCO RANCH EXPANSION	APPLICANT: CROWN CASTLE 1220 AUGUSTA DR. HOUSTON, TX 77057 CONTACT: BARRY CAMPALU
PROJECT AREA: CINCO RANCH - HGCW	CODES: 2009 INTERNATIONAL BUILDING CODE (IBC) 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2008 NATIONAL ELECTRICAL CODE (NEC) 2008 NATIONAL ELECTRICAL SAFETY CODE (NESC)
JURISDICTION: FORT BEND COUNTY ENGINEERING DEPT. 1124 BLUME RD. ROSENBERG, TX 77471 PH: 281.633.7500 CONTACT: JOHNNY ORTEGA	PLUMBING REQUIREMENTS: FACILITY HAS NO PLUMBING.
HANDICAPPED REQUIREMENTS: -FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. -HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED.	POWER COMPANY: CENTERPOINT ENERGY 5431 HIGHWAY BLVD KATY, TX 77494 PH: 281.550.4275 CONTACT: KEN CORTEZ

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



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

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



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

RECORD DRAWINGS ISSUE DATE: 10/16/16



Shift Companies, LLC
 10111 KATY AVENUE SUITE
 5070 NORTH HOUSTON, TX 77060
 PH: 281.294.8822
 FW: 281.294.8822

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RELEASE DATE	SUBMITTAL
8/28/16	1ST CITY SUBMITTAL
10/16/16	2ND CITY SUBMITTAL

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

PROJECT NAME
 CINCO RANCH EXPANSION

NODE ADDRESS

NODE #: CCR-30
PEEK RD AND EMILY PARK LN

HUB AREA
 CINCO RANCH - HGCW

SHIFT JOB NUMBER 150602
IN HOUSE DRAWN BY: []
 CHECKED BY: []

SHEET TITLE
 TITLE SHEET

SHEET NUMBER	PAGE
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PLOT SCALE: 1/8" @ 24'-0" 1/2" @ 11'-0"

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.

PART 2 - EXECUTION

1. EXECUTION

A. Provide (1) main ground from the antenna mounting bracket at the top of the pole, to the main ground bus bar (TMGB) (location defined below). Main vertical ground shall consist of #4 solid bare copper cable. Run may also be in conduit or pipe that was **not** recommended by Cps. As it is cheaper and less likely to be damaged. Run may also be in conduit or pipe that was **not** recommended by Cps. As it is cheaper and less likely to be damaged.

B. Provide (2) main ground from the main ground bus bar (TMGB) (location defined below) to a ground rod at the pole base. Main ground vertical shall consist of a #2 solid bare copper cable. Main ground shall be protected by a PVC U-bend to the bottom of the pole and stapled every 24" with common rusted paper galvanneal straps (copper cable). Main ground shall be protected by a PVC U-bend to the bottom of the pole and stapled every 24" with common rusted paper galvanneal straps.

C. Ground rod shall be 1/2" diameter minimum and 6' long.

D. Ground rod shall be attached directly to the ground rod via Galv Steel.

E. Main ground shall be buried at least 18" below the surface of the ground.

F. #2 ground shall be attached directly to the ground rod via Galv Steel.

G. Main ground vertical shall be attached directly to the main ground bus bar (TMGB) mounted to the face of the utility pole. Method of contact shall be 2 hole slotted lug (flange) to the main ground bus (TMGB) on the left or top side depending on the orientation of the TMGB.

H. Main ground vertical to the Antenna mounting bracket shall be attached directly to the Antenna Bracket via a self-tapping bolt or screw. A washer must be added to the bolt end or screw to avoid damage to the chassis cabinet below the HIR chassis. directly to the wood pole structure.

I. All rods installed on-site, including but not limited to: antenna mounts and antennas, mounting brackets, supports shall be connected to the TMGB using compression type 2 hole conductor lugs.

J. Conductor lugs must attach to the bus bar with two holes facing up and with the bolt heads on the back side of the bus bar.

K. Securing of conductor lugs is prohibited.

L. Placement of conductor lugs on front and rear face of grounding bar is permitted.

M. Any modifications to the conductor lugs is prohibited, including but not limited to grinding, sanding or bending.

N. Conductor lugs must be placed with even spacing and must not come in contact with another conductor lug.

O. Splices on the conductor lugs must be made on the inside end of the bus bar.

P. All conductor lugs shall have two (2) compression per lug.

Q. All conductor lugs that have NO-ON applied to any studs which contact another metal to retard corrosion including and especially the compression and all conductor lugs that are properly sealed from weather with base seal.

R. All weather on the back side of the lug.

S. Bolt from the lug side being outward.

T. Flat Washer on the front side of the lug.

U. Lock Washer on the front side of the flat washer.

V. The tool, lubricant, breakers should be maintained properly.

W. All bolts on conductor lugs must be tightened to the torque values as indicated on the manufacturer's instructions.

X. No mechanical connections are acceptable except in the event of mechanical fittings being a integral part of the product from the factory. ie Chassis cabinet #1 ground lug on each end of the chassis.

Y. Excess wires on Chassis must be ground off a safe edge.

Z. All cut wires must be coated with zinc or tin to prevent ground corrosion.

AA. All exposed metallic surfaces must be sprayed with a protective coating such as Zinco.

AB. All fibreglass materials must be sealed with an epoxy.

AC. Exposed "terminals" conductors are controlled to be within 1/16" of an inch.

PART 3 - TESTING AND DOCUMENTATION

31. TESTING

A. Omit to ground is required for acceptance. If Omit to ground is not, then above requirements, additional ground rods will be added to the land used to Omit to ground.

32. DOCUMENTATION

A. Photos of the work as required as well as test results in formal document format. Submit result of test to CC Construction Manager prior to final walkthrough. Submit as photos and tests with completed package per Section 01700 - Closeout Procedures and Required Documents.

GROUNDING SPECIFICATIONS SCALE: NTS 6

1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.

2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION/FORTBENDCOUNTYTX.GOV.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAY.

4. ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY RULES, REGULATIONS AND REQUIREMENTS RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.

5. ALL ROAD WIDTHS, CURB RISES AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.

6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.

7. ALL CONCRETE PAVEMENT SHALL BE 5" IN THICKNESS WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.

8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.

9. 4" X 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.

10. AT ALL INTERSECTION LOCATIONS, TYPE 3 RAMPS SHALL BE PLACED IN ACCORDANCE WITH TxDOT PED-12A STANDARD DETAIL SHEET A.D.A. HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.

11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 8' OF RAMPS.

12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.

13. GUIDELINES ARE SET FORTH IN THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC. DURING CONSTRUCTION, BOTH DAY AND NIGHT.

14. ALL 81-1 STOP SIGNS SHALL BE 20"x20" WITH DAMAGED GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BACK REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWER CASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWER CASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.

16. A BULB DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.

INSPECTION: THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR OBJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

GENERAL PROJECT NOTES SCALE: NTS 6

CREW MUST HAVE ONE (1) ALLY CERTIFIED PERSON - PERSONNEL WORKING/INSTALLING THE ABOVE CABINET MUST HAVE THE ALLY METRO CELL CERTIFICATION. (ALLY CERTIFIED PERSONNEL MAY INSTALL ALLY METRO CELLS. I.E. NO THAN THE TRAINER OPTIONS REFERRED) - A CERTIFIED INSTALLER MAY SUPERVISE ONE OR MORE NON-CERTIFIED "HELPER" AS LONG THE CERTIFIED INSTALLER IS ON THE SAME SITE 100% OF THE TIME. I.E. NO ROAMING SUPERVISORS - A CERTIFIED INSTALLER MAY NOT ACT AS A ROAMING QUALITY AUDITOR UNLESS THE ORIGINAL INSTALLATION IS COMPLETED BY A CERTIFIED INSTALLER AND THE QUALITY AUDIT IS ONLY USED TO ENSURE INTERNAL QUALITY. IN NO WAY WILL THIS AUDIT BE PORTRAYED AS AN ALICATE-LUCENT AUDIT. CERTIFIED PERSONNEL HAVE ACCESS TO RECEIVE TECHNICAL SUPPORT FOR ISSUES RELATED TO METRO CELL INSTALLATION. (866) 562-3889. (866) LUCENT. THE FOLLOWING PRODUCTS ARE COVERED: 9980 METRO CELL, INDOOR, 9984 METRO CELL, OUTDOOR, 9983 METRO CELL, INDOOR, 9794 METRO CELL, OUTDOOR, 9798 METRO RADIO, OUTDOOR V1.0, AND THE 7315 CABINET.

ALLY CERTIFIED TECH NOTE SCALE: NTS 11

FORT BEND COUNTY CONSTRUCTION NOTES SCALE: NTS 8

1. RIGHT-OF-WAY USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.

2. A UTILITY LOCATE IS REQUIRED FOR ALL PROJECTS.

3. CROSSINGS OF EXISTING UTILITIES SHALL BE COORDINATED BY CONTRACTOR.

4. ALL WORK TO BE CONDUCTED IN CITY RIGHT OF WAY, U.N.O.

5. ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.

6. ALL SURFACE REPAIR SHALL BE TO CITY SPECIFICATIONS.

7. ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNAGE WILL BE IN PLACE.

8. TEMPORARY LIGHTING WILL BE COORDINATED WITH CITY AND PROVIDED WHENEVER EXISTING LIGHTING IS REMOVED OR UNAVAILABLE AS REQUIRED.

9. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.

10. OPEN EXCAVATIONS SHALL BE PROPERLY GUARDED AND SIGNED. NO OPEN EXCAVATIONS WILL BE LEFT ACCESSIBLE TO THE PUBLIC.

11. CLEANUP OF THE WORK AREA WILL BE COMPLETED EACH EVENING AND THE PROJECT AREA WILL BE RETURNED TO EXISTING CONDITION AT THE COMPLETION OF CONSTRUCTION AT EACH NOISE LOCATION.

12. ALL WORK TO COMPLY WITH OSHA AND CITY GUIDELINES.

13. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING PRIVATE IRRIGATION PRIOR TO EXCAVATION. CONTRACTOR WILL REPAIR OR REROUTE IRRIGATION IN ROW AS NECESSARY.

14. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REPLACE, AT THEIR COST, ANY AND ALL DAMAGED PAVEMENT, SIDEWALK, CURB AND GUTTER OUTSIDE THE PAY LIMIT, DAMAGE DUE TO THEIR ACTIVITIES ON THE PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO THE REMOVAL AND REPLACEMENT OF NEWLY CRACKED, THE REMOVAL AND REPLACEMENT OF EXISTING CRACKS (WHERE THE CRACKS HAVE BEEN REPAIRED) DUE TO THE CONTRACTOR'S OPERATIONS. THE REMOVAL AND REPLACEMENT OF DEFORMED PAVEMENT, CURB AND GUTTER, SIDEWALK, ETC., ALL SAW CUTS USED FOR THE REMOVAL OF THESE ITEMS SHALL BE PERPENDICULAR AND PARALLEL TO THE CENTERLINE CONTROLLING THAT ITEM, OR AT THE DISCRETION OF THE CITY INSPECTOR.

15. THE VALVES INSTALLED IN CONJUNCTION WITH THE INDIVIDUAL ANTENNA NODES SHALL BE FLUSH WITH THE GROUND.

ABBREVIATIONS AND SYMBOLS SCALE: NTS 10

CENTER LINE

PROPERTY LINE

RIGHT-OF-WAY

FIBER

GAS

POWER

SANITARY SEWER

STORM DRAIN

WATER

LIGHT CIRCUIT POWER

OVERHEAD POWER LINE

ABBREVIATIONS AND SYMBOLS SCALE: NTS 10

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

RECEIVE SIGNAL

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

RECEIVE SIGNAL

GAUGE

GALVANIZED

GENERAL CONTRACTOR

GLUE LAMINATED BEAM

GROUND

DRYWALL WALL BOARD

AC

ADJ

APP

ANAL

APPROX

AWG

ARI CONDITIONING

ADJUSTABLE

HORIZ

HOUR

HT

HYAC

INTERNATIONAL BUILDING CODE

INSIDE DIA

INCH

INFORMATION

INTERIOR

FOUNDED

LINEAR FEET

THRU

TAND

T.O.

TOP OF

TOP OF BLOCK

TOP OF CONCRETE

TOP OF MASONRY

TUBE STEEL

TX

TRANSIT SIGNAL

TYPICAL

UNDERGROUND

UNDERWRITES LAB

UNIVERSAL RADIO HEAD

UNLESS NOTED OTHERWISE

VERT

VERT IN FIELD

VINYL TILE

W

WEST

W

WITH

WW

WITHOUT

WP

WORKING POINT

WTR

WATER

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

RECEIVE SIGNAL

GAUGE

GALVANIZED

GENERAL CONTRACTOR

GLUE LAMINATED BEAM

GROUND

DRYWALL WALL BOARD

VIEW NUMBER

SHEET NUMBER

SHEET GROUP

EXISTING TREE

EXISTING BUSH / SHRUB

APPROVED: [Signature]

DATE: 11/1/16

Development Coordinator

ARI CONDITIONING

ADJUSTABLE

HORIZ

HOUR

HT

HYAC

INTERNATIONAL BUILDING CODE

INSIDE DIA

INCH

INFORMATION

INTERIOR

FOUNDED

LINEAR FEET

THRU

TAND

T.O.

TOP OF

TOP OF BLOCK

TOP OF CONCRETE

TOP OF MASONRY

TUBE STEEL

TX

TRANSIT SIGNAL

TYPICAL

UNDERGROUND

UNDERWRITES LAB

UNIVERSAL RADIO HEAD

UNLESS NOTED OTHERWISE

VERT

VERT IN FIELD

VINYL TILE

W

WEST

W

WITH

WW

WITHOUT

WP

WORKING POINT

WTR

WATER

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EXISTING TREE

EXISTING BUSH / SHRUB

APPROVED: [Signature]

DATE: 11/1/16

Development Coordinator

ABBREVIATIONS AND SYMBOLS SCALE: NTS 10

CENTER LINE

PROPERTY LINE

RIGHT-OF-WAY

FIBER

GAS

POWER

SANITARY SEWER

STORM DRAIN

WATER

LIGHT CIRCUIT POWER

OVERHEAD POWER LINE

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

RECEIVE SIGNAL

GAUGE

GALVANIZED

GENERAL CONTRACTOR

GLUE LAMINATED BEAM

GROUND

DRYWALL WALL BOARD

VIEW NUMBER

SHEET NUMBER

SHEET GROUP

EXISTING TREE

EXISTING BUSH / SHRUB

APPROVED: [Signature]

DATE: 11/1/16

Development Coordinator

ABBREVIATIONS AND SYMBOLS SCALE: NTS 10

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

RECEIVE SIGNAL

GAUGE

GALVANIZED

GENERAL CONTRACTOR

GLUE LAMINATED BEAM

GROUND

DRYWALL WALL BOARD

VIEW NUMBER

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SHEET GROUP

EXISTING TREE

EXISTING BUSH / SHRUB

APPROVED: [Signature]

DATE: 11/1/16

Development Coordinator

ABBREVIATIONS AND SYMBOLS SCALE: NTS 10

REFLECTED OBLING PLAN REQUIRED

ROOM

ROUGH OPENING

RIGHT-OF-WAY

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GLUE LAMINATED BEAM

GROUND

DRYWALL WALL BOARD

VIEW NUMBER

SHEET NUMBER

SHEET GROUP

EXISTING TREE

EXISTING BUSH / SHRUB

APPROVED: [Signature]

DATE: 11/1/16

Development Coordinator



CROWN CASTLE
600 E. JOHN CARPENTER Fwy
SUITE 100
IRVING, TX 75062

RECORD DRAWINGS ISSUE DATE: 10-11-16



Shift Companies, LLC
7011 TEXAS 103A Fwy
KATY, TEXAS 75149
817-469-9327
817-469-3448 (FAX)

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DATE	SUBMITTAL
8-23-16	1ST CITY SUBMITTAL
10-11-16	2ND CITY SUBMITTAL

NO.	DATE	COMMENT
10	10-18-15	CITY COMMENTS

PROJECT NAME
CINCO RANCH EXPANSION

HUB AREA
CINCO RANCH - HGCW

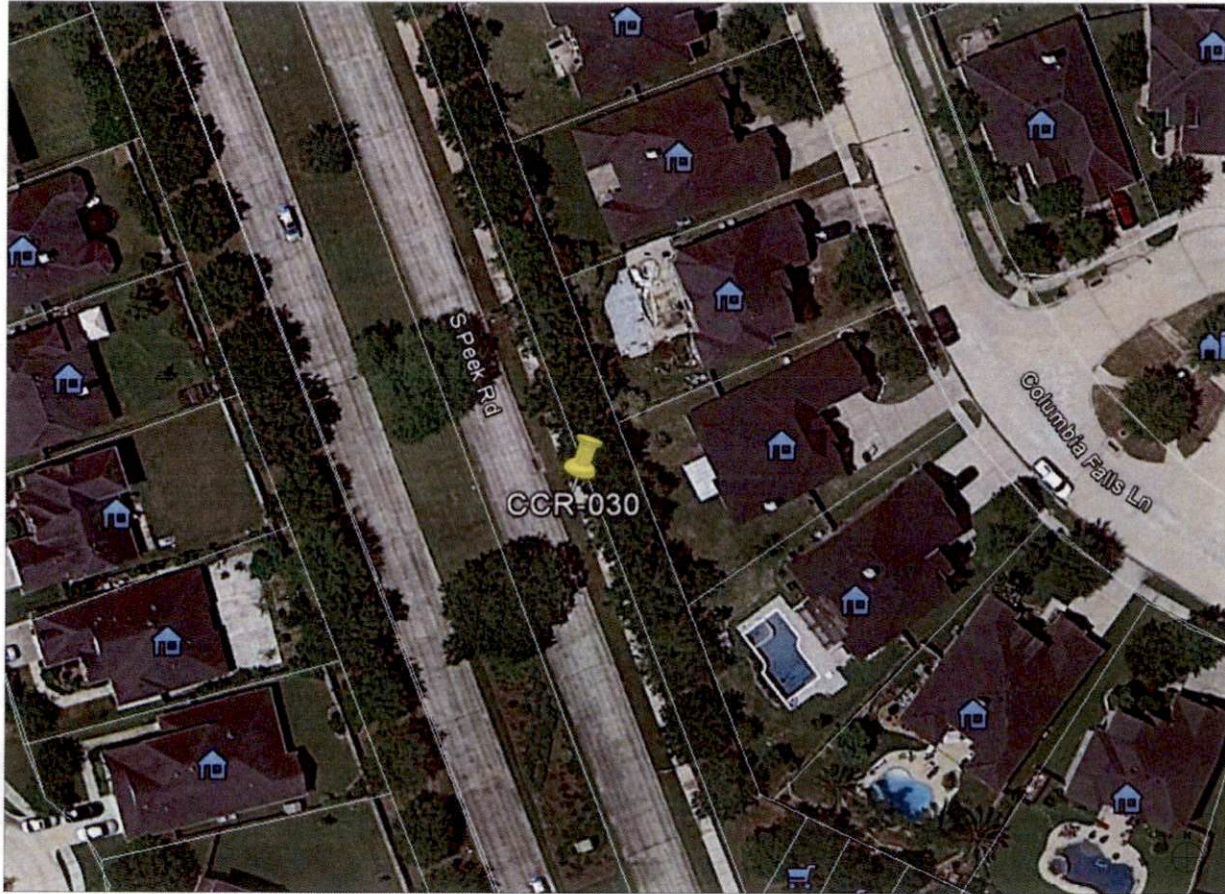
SHIFT JOB NUMBER 150602
ISSUE 150602
DRAWN BY DM
CHECKED BY DM

SHEET TITLE

GENERAL NOTES
ABBREVIATIONS AND SYMBOLS

SHEET NUMBER T1.2
PAGE 2 OF 14

PLOT SCALE: 1" = 3'-0" (1" = 3'-0")



NODE AERIAL PLAN

SUBJECT POLE: CCR-30

GPS COORDINATES:

LAT: 29.7060

LONG: -95.78118

POLE TYPE: METAL SLIMLINE POLE

POLE ID #:

UPPER ANTENNA RAD CENTER: 37' - 0" A.F.G.

LOWER ANTENNA RAD CENTER: 35' - 0" A.F.G.

APPROVED: *[Signature]*
Developer Coordinator

DATE: 11/1/16



CROWN CASTLE
800 E. JOHN CARPENTER Fwy.
SUITE 300
IRVING, TX 75032

RECORD DRAWING ISSUE DATE: 10/18/16



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RELEASE	
DATE	SUBMITTAL
8/29/16	1ST CITY SUBMITTAL
12/16/16	2ND CITY SUBMITTAL

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

PROJECT NAME:
CINCO RANCH EXPANSION

NODE ADDRESS:
NODE #:CCR-30

PEEK RD AND EMILY PARK LN

HUB AREA:
CINCO RANCH - HGCW

SHIFT JOB NUMBER: 150602 **IN HOUSE:**

DRAWN BY: AP **CHECKED BY:** CM

SHEET TITLE:
AERIAL

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

PLOT SCALE: 1" = 24'x30'; 1:2 @ 11"x17"



SITE PHOTO (EXISTING)

N.T.S.

PLAN CHECK #

CASE #

KEYNOTE	DESCRIPTION	DETAIL
A01	PROPOSED CROWN CASTLE GMR ANTENNA	16'D1
A02	PROPOSED CROWN CASTLE 2" U.G. CONDUIT (APPROXIMATE LOCATION, F.V.)	16'D1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNIT (RUE) EQUIPMENT CABINET	16'D1
A04	PROPOSED NEW METAL SLURLINE POLE	20'D1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER VULT	5'D1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	20'D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	16'D1
A09	PROPOSED CROWN CASTLE PER FOUNDATION	12'D1.1
A09	PROPOSED ELECTRICAL HAND HOLE	

KEYNOTE	DESCRIPTION	DETAIL
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	16'D1
U01	PROPOSED 2" CROWN CASTLE U.G. POWER CONDUIT (APPROXIMATE LOCATION, F.V.)	2'D1.1 & 6'D1.2
U02	PROPOSED CROWN CASTLE 2" U.G. FIBER CONDUIT BY OTHERS (APPROXIMATE LOCATION, F.V.)	2'D1.1 & 6'D1.2



NOTES:
 1. ANY DAMAGE TO EXISTING UTILITY (CABLE, SIDEWALK 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 HARDSCAPES (DETACHED OR DETACHED) AS A RESULT OF CONSTRUCTION SHALL BE REPLACED WITH A LIKE SIZE AND SPECIE.
4. CONTRACTOR TO HAND LOCATE EX' SIGNAGE PRIOR TO EXCAVATION.
5. SITE PLAN IS A DIAGRAMMATIC REPRESENTATION ONLY; VERIFY ALL DIMENSIONS.
6. VERIFY ALL PROPERTY LINE INFORMATION WITH AVAILABLE P.O.W. DATA.
7. EXIST' UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY (AS PROVIDED BY LOCAL UTILITIES).

SUBJECT POLE: CCR-30

GPS COORDINATES:

LAT: 29.7563

LONG: -95.76118

POLE TYPE: METAL SLURLINE POLE

POLE ID #:

UPPER ANTENNA RAD CENTER: 27' - 0" A.F.G.

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

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

APPROVED: *[Signature]*
Development Coordinator

DATE: 10/11/16

CROWN CASTLE
 500 E. JOHN CAMPBELL Fwy.
 SUITE 300
 IRVING, TX 75002

RECORD DRAWINGS ISSUE DATE: 10/16/16

Shift Companies, LLC
 20111 WEAVER STREET
 KOTTWITZ, ARIZONA 85517
 PH: 480.264.6000
 FAX: 480.264.0563

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

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

PROJECT NAME: CINCO RANCH EXPANSION

NODE ADDRESS: CINCO RANCH - HGCW

NODE #: CCR-30
PEEK RD AND EMILY PARK LN

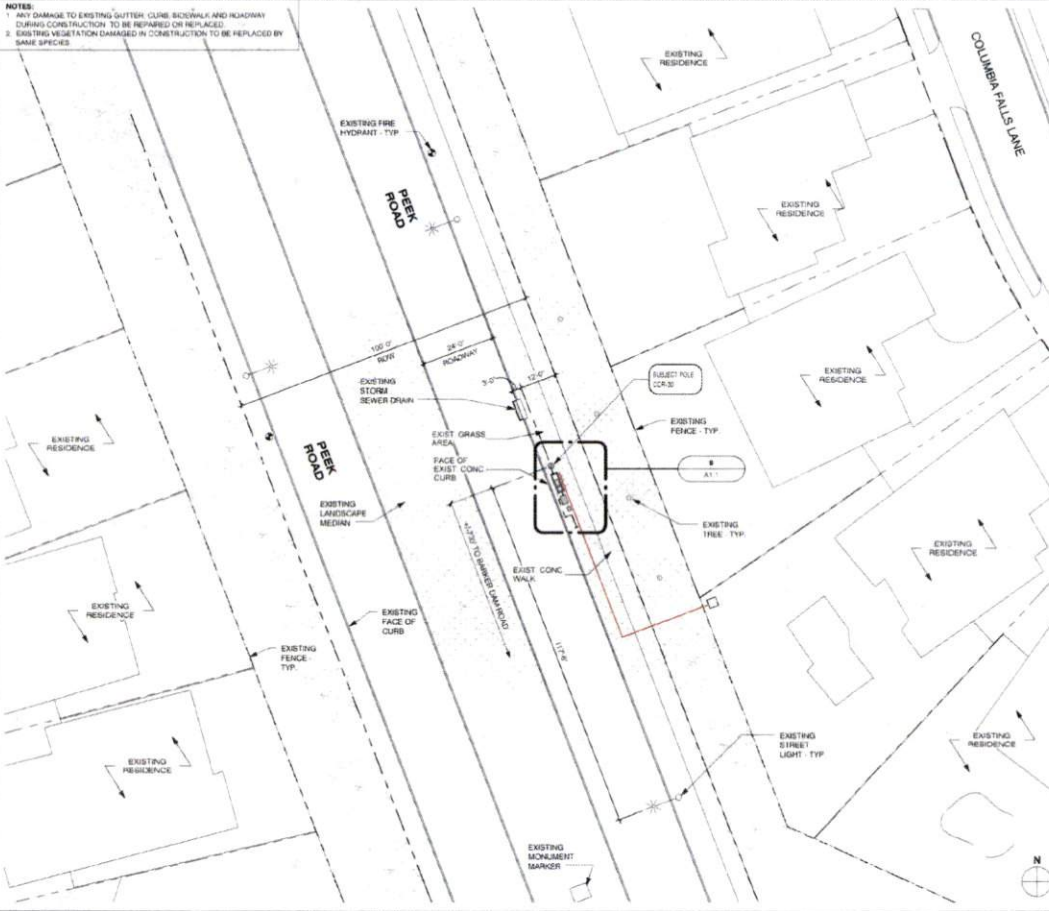
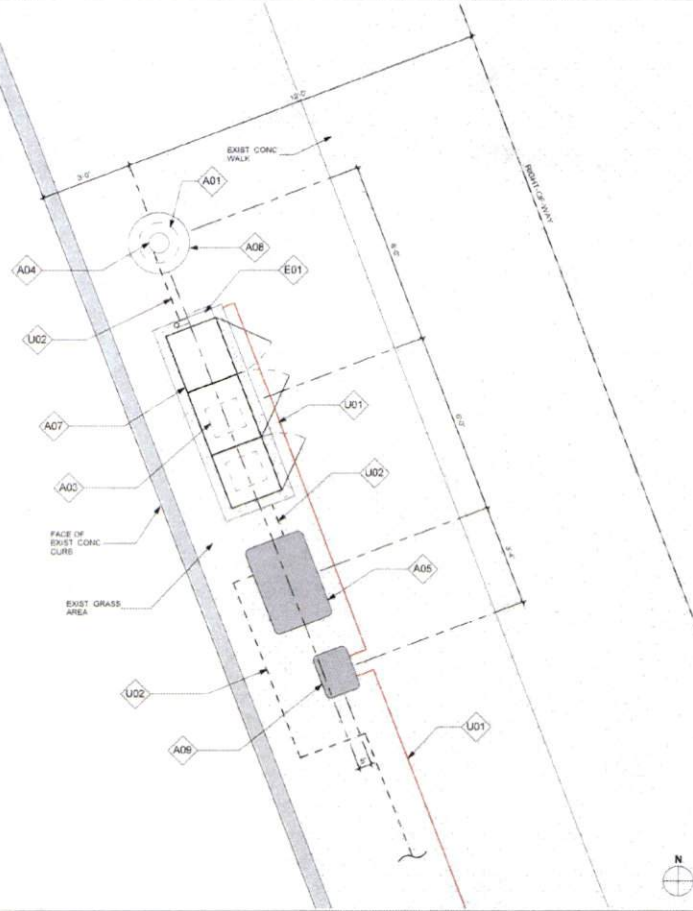
HUB AREA: CINCO RANCH - HGCW

SHIFT JOB NUMBER: 150602
IN HOUSE: DRAWN BY: SA, CHECKED BY: CM

SHEET TITLE: SITE PLAN, EQUIPMENT AND ANTENNA PLAN

SHEET NUMBER: A1.1
PAGE: 5 OF 14

PLOT SCALE: 1" = 24'x30'; 1/2" = 11'x14'



EQUIPMENT AND ANTENNA PLAN

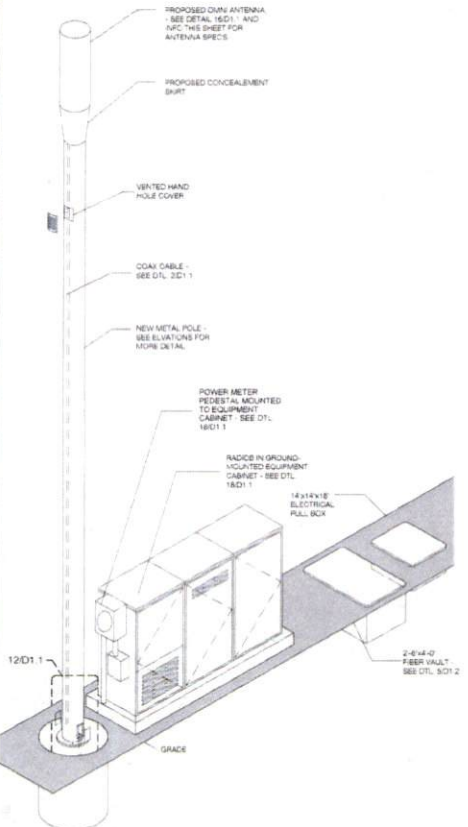
1/2" = 1'-0" 8

OVERALL SITE PLAN

1" = 20'-0" 20

PLAN CHECK # CASE #

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



KEYNOTE LEGEND		
KEYNOTE	DESCRIPTION	DETAIL NUMBER
A01	PROPOSED CROWN CASTLE OMNI ANTENNA	16D1.1
A02	PROPOSED CROWN CASTLE F U/B CONDUIT (APPROXIMATE LOCATION, F.V.)	2D11
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNITS INSIDE EQUIPMENT CABINET	18D1.1
A04	PROPOSED NEW METAL BILMARE POLE	20D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER VAULT	5D1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	20D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	18D1.1
A08	PROPOSED CROWN CASTLE POLE FOUNDATION	12D1.1
A09	PROPOSED ELECTRICAL HAND-HOLE	
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	18D1.1

MODEL	AMPHENOL-2C2UT350X13F425
LENGTH	45"
WIDTH	14.8" DIA
DEPTH	N/A
WEIGHT	38 LBS
PROPOSED PANEL ANTENNA SPECS	
PROPOSED POLE WIDTH = 6"Ø	
PROPOSED POLE HEIGHT = 32'-0"	
1'-4" ANTENNA AND 1'-6" ANTENNA MOUNT	
POLE INFO	

APPROVED: *[Signature]*
Development Coordinator
DATE: 11/1/16

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

RECORD DRAWINGS ISSUE DATE: 10/16/16

SHIFT
Shift Companies, LLC
13311 TEXAS STATE ROAD
SCOTTSDALE, ARIZONA 85257
PH: 480-364-8820
FAX: 480-364-8833

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RELEASE	
DATE	SUBMITTAL
8/23/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

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

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS
NODE #:CCR-30
PEEK RD AND EMILY PARK LN

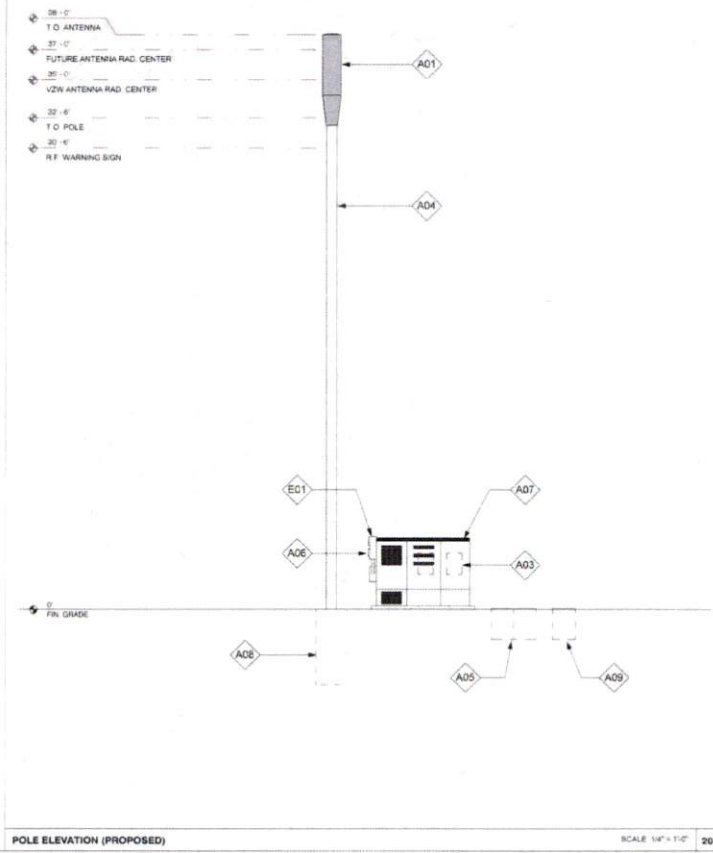
HUB AREA
CINCO RANCH - HGCV

SHIFT JOB NUMBER **150602** IN HOUSE
DRAWN BY: BA CHECKED BY: CM

SHEET TITLE
POLE ELEVATION, PROPOSED

SHEET NUMBER **A1.2** PAGE **6 OF 14**

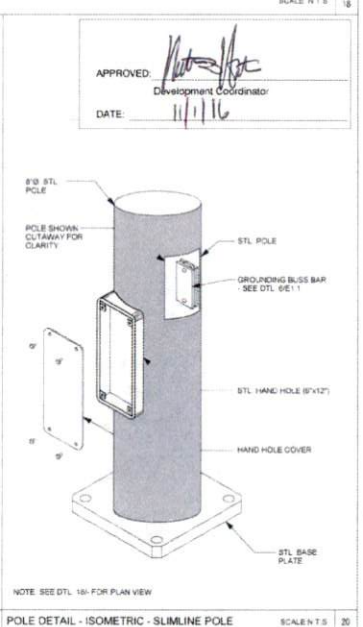
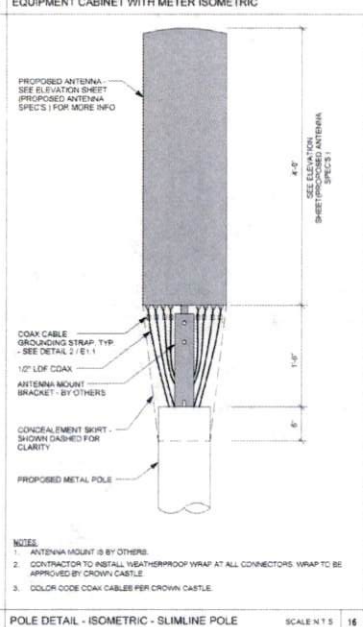
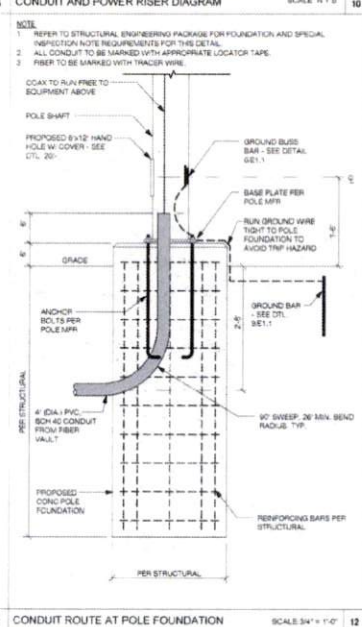
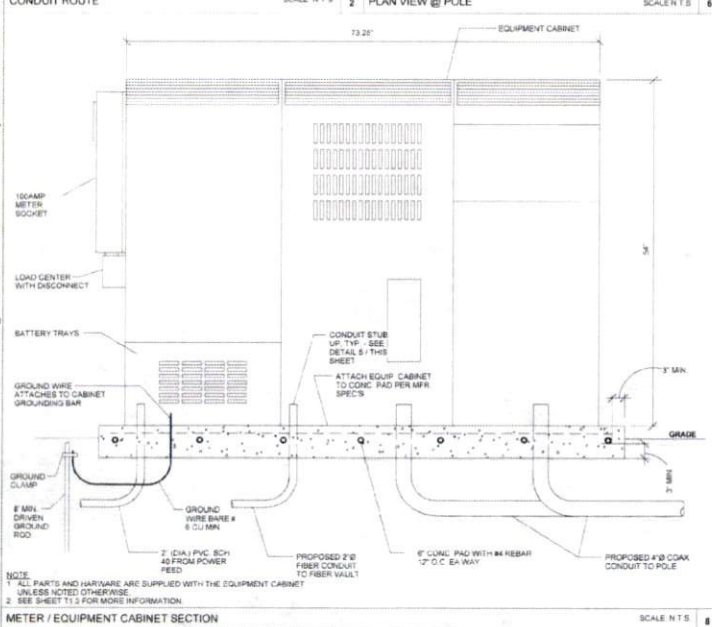
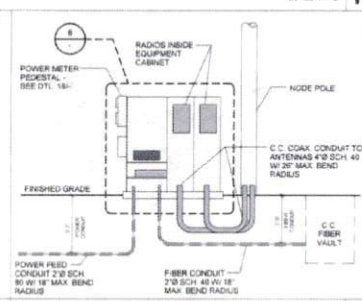
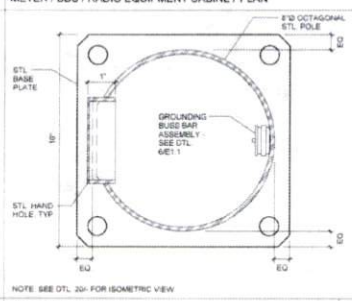
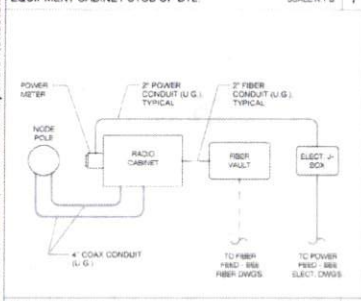
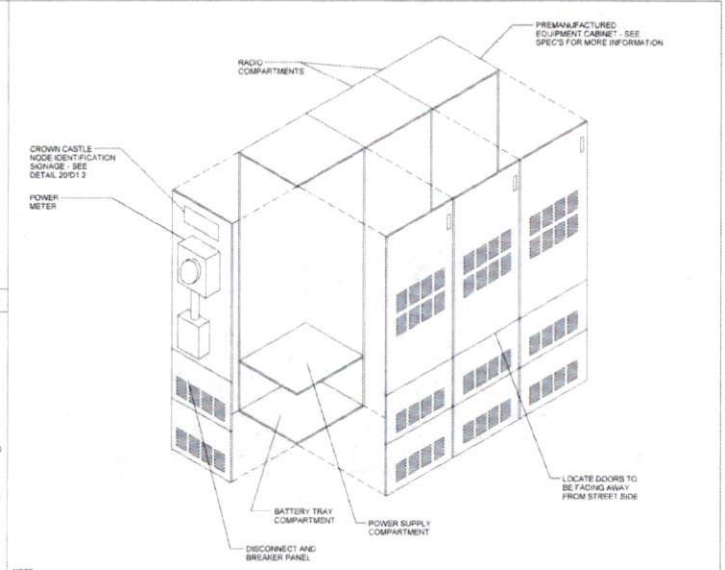
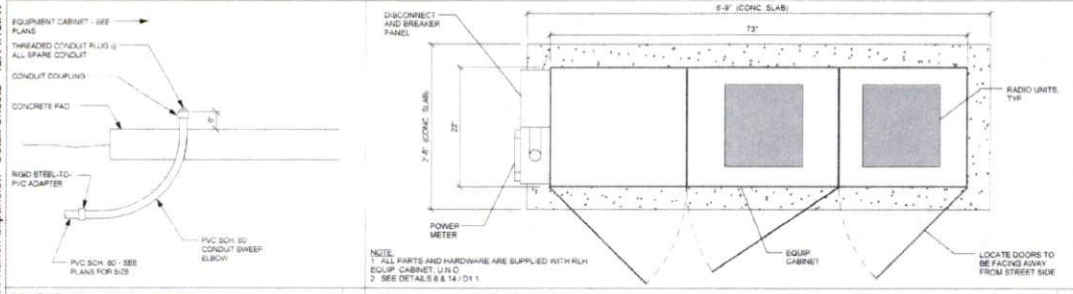
PLOT SCALE: 1:1 @ 24"x36"; 1:2 @ 11"x17"



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

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

PLAN CHECK #



APPROVED: *[Signature]*
Development Coordinator
DATE: 11/1/16



CROWN CASTLE
601 E. JOHN CARPENTER FWY.
SUITE 300
IRVING, TX 75002

RECORD DRAWING (ISSUE DATE: 10.18.16)



Shift Companies, LLC
15111 E. WYOMING ROAD
NORTON, ARIZONA 85217
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FX: 480.248.5583

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RELEASE	DATE	SUBMITTAL
	6.23.16	1ST CITY SUBMITTAL
	10.18.16	2ND CITY SUBMITTAL

REVISIONS	NO.	DATE	COMMITMENT
	10.18.16	CITY COMMENTS	

PROJECT NAME
CINCO RANCH EXPANSION

HUB AREA
CINCO RANCH - HGCV

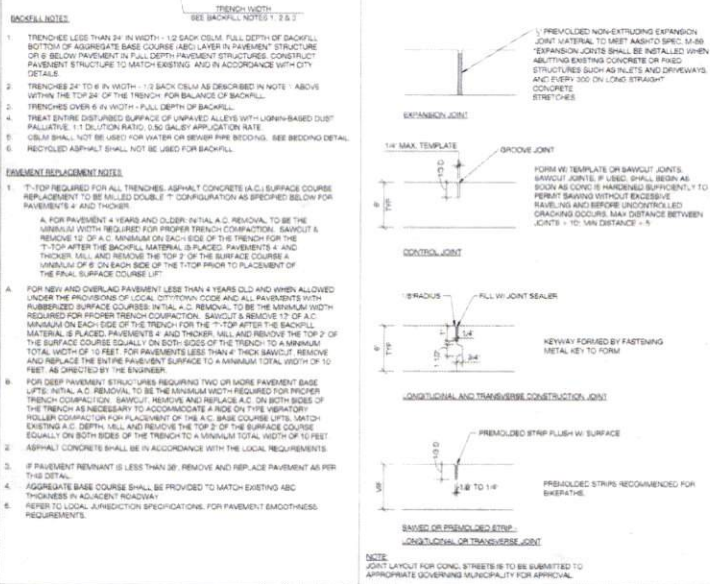
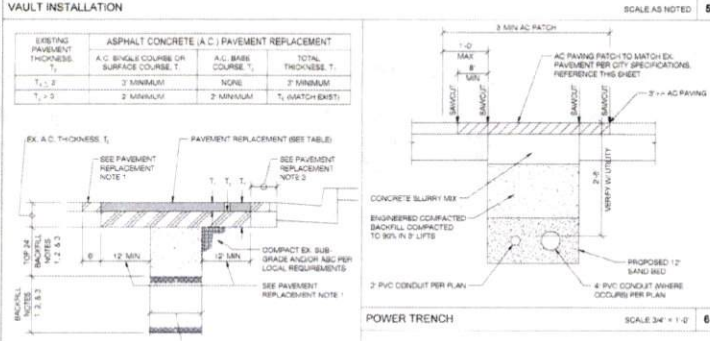
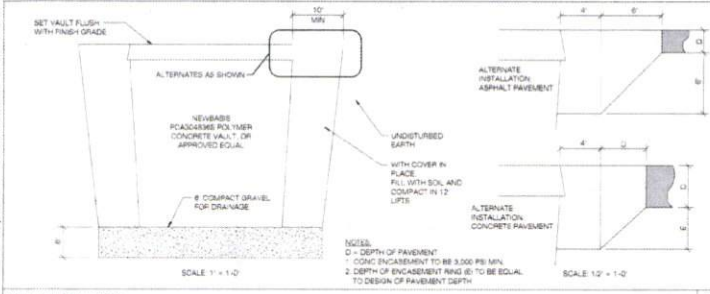
SHIFT JOB NUMBER
150602

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
D1.1

PAGE
7 OF 14

PLOT SCALE: 1:1 @ 24"x36"; 1:2 @ 11"x17"





APPROVED: *[Signature]*
 Development Coordinator
 DATE: 11/1/16



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

RECORD DRAWINGS (ISSUE DATE: 10/18/16)



Shift Companies, LLC
 1311 40th Street
 Scottsdale, Arizona 85251
 PH: 480.348.8000
 FX: 480.348.8533

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RELEASE	DATE	SUBMITTAL
	6/23/16	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-30
PEEK RD AND EMILY PARK LN

HUB AREA
CINCO RANCH - HGCW

SHIFT JOB NUMBER | IN HOUSE
150802 | DRAWN BY: RA
 CHECKED BY: CM

SHEET TITLE
ELECTRICAL PLANS

SHEET NUMBER | PAGE
E1.0 | **9 OF 14**

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

