



**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: 2016-10744

Applicant: Crown Castle NG Central LLC/Shift Companies

Job Location Site: S.W.C. OF MARSDEN PARK LANE AND LIGHTFIELD LN, KATY, TX 77494

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 portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 13th day of December, 2016, Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, 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

N/A

By:

Drainage District Engineer/Manager

Date Recorded 12-21-16

Comm. Court No. 13D

Clerk of Commissioners Court

By:

Kinda Wilkes

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: 2016-10744

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:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

- ☐ County Attorney, approval when applicable.
- ☒ Perpetual bond currently posted. Bond No: [REDACTED] Amount: \$50,000.00
- ☐ Performance bond submitted. Bond No: _____ Amount: _____
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

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

Charles O. Ay

Permit Administrator

12/6/16

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 dark ink, appearing to read "Chris Myers".

Chris Myers
Principal
SHIFT Companies

PROJECT NAME: CINCO RANCH EXPANSION
PROJECT ADDRESS: MARSDEN PARK LANE AND LIGHTFIELD LN
PROJECT TYPE: LIGHT POLE
HUB AREA: CINCO RANCH - HGCW
NODE #(s): **CCR-23**
COORDINATES: LAT: 29.724744, LONG: -95.785867

FORT BEND COUNTY ENGINEER

DATE: 11/1/16

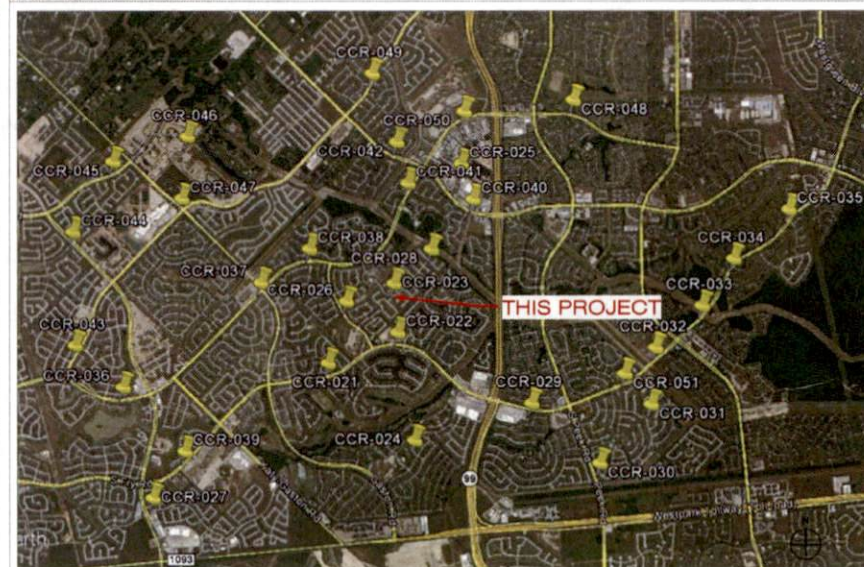
REVIEWED

OVERALL NODE LOCATION MAP

PROJECT SUMMARY

HANDICAPPED REQUIREMENTS:	POWER COMPANY:
-FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.	CENTERPOINT ENERGY 5431 HIGHWAY BLVD. KATY, TX 77494 PH: 281.520.6275
-HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED.	CONTACT: KEN CORTEZ

NOTE: NOT ALL SITES ARE INCLUDED IN THIS SET.
SEE NODE #5 ABOVE FOR SITES THAT ARE IN THIS SET



PROJECT DESCRIPTION

A SUBJECT NODE WILL CONSIST OF NEW METAL SUMMIT 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.

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

3.2 **DOCUMENTATION**
A. Photos of the tests are required as well as test results in formal document format. Submit result of test to CC Construction Manager prior to final walkthrough. Submit all photos and tests with closeout package per Section 017700 - Closeout Procedures and Required Documents.

[illegible]

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.

SECTION 01.00 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. EITHER PARTY'S FAILURE TO INSPECT OR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS FACT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PREVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

CREW MUST HAVE ONE CERTIFIED PERSON - PERSONNEL WORKING IN THE NUCLE CABINET MUST HAVE THE ALU MTRIO CELL CERTIFICATION . . . ONLY CERTIFIED PERSONNEL MAY INSTALL ALU MTRIO CELLS. I.E. NO TRAIN THE THINNER OPTIONS PERMITTED . . . A CERTIFIED PERSON MAY ONLY REMOVE A CELL FROM THE CABINET IF THE LONG THE CERTIFIED INSTALLER IS ON THE SCENE WITH 100% OF THE TIME. IF THE PERSONNEL IS A CERTIFIED PERSONNEL, HE MAY NOT ACT AS A REMOVING QUALITY AUDITOR UNLESS THE ORIGINAL INSTALLATION IS COMPLETED BY A CERTIFIED INSTALLER AND THE QUALITY AUDIT IS ONLY FOR THE EXPOSURE OF THE CELL. THE QUALITY AUDIT MUST BE REPORTED AS AN ALCATEL-LUCENT AUDIT . . . CERTIFIED PERSONNEL HAVE ACCESS TO REMOTE TECHNICAL SUPPORT FOR ISSUES RELATED TO MTRIO CELL INSTALLATION. . . . THE QUALITY AUDIT FOR THE MTRIO CELL PRODUCTS ARE COVERED 9993 MTRIO CELL DUDOUT, 9364 MTRIO CELL DUDOUT, 4963 MTRIO CELL DUDOUT, 9364 MTRIO CELL DUDOUT, 9798 MTRIO RADIO DUDOUT, 9364 AND THE 7313 CABINET.

— — — — —	CENTER LINE
=====	PROPERTY LINE
——— — — — —	RIGHT-OF-WAY
- F - - - F -	FIBER
- G - - - G -	GAS
- P - - - P -	POWER
- S - - - S -	SANITARY SEWER
- SD - - - SD -	STORM DRAIN
- W - - - W -	WATER
- L - - - L -	LIGHT CIRCUIT POWER
- OHE - - - OHE -	OVERHEAD POWER LINE

	REVISION
	KEY NOTE
	DETAIL REFERENCE
	ELEVATION REFERENCE
	SECTION REFERENCE
	ELEVATION MARKER
	PHOTOBALL REFERENCE
	ANTENNA AZIMUTH
	VIEW NUMBER
	SHEET NUMBER
	SHEET GROUP
	EXISTING TREE
	EXISTING BUSH / SHRUB
APPROVED:  Development Coordinator DATE: <u>11/11/16</u>	
SCALE: NTS 20	

RECORD DRAWINGS ISSUE DATE: 10/18/18

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REVISIONS		
NO.	DATE	COMMENT
	10 18 16	CITY COMMENTS

[illegible]

HUB AREA
CINCO RANCH - HGCW
SHIFT JOB NUMBER
150602

GENERAL NOTES
ABBREVIATIONS AND
SYMBOLS

T1.2 2 OF 14

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EQUIPMENT CABINET SPECIFICATIONS



NODE AERIAL PLAN

SUBJECT POLE: CCR-23

GPS COORDINATES:

LAT: 28.724744

LONG: 96.786967

POLE TYPE: LIGHT POLE

POLE ID #:

UPPER ANTENNA RAD CENTER: 30 - 0 A.F.G.

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

APPROVED: *[Signature]*
Development Coordinator

DATE: 11/1/16

CROWN CASTLE

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

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

SHIFT

Shift Companies, LLC
13317 104th Street SW
SCOTTSDALE, ARIZONA 85257
PH: 480.344.3037
WWW.SHIFT.COM

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RELEASE	
DATE	SUBMITTAL
6/28/15	1ST CITY SUBMITTAL
11/18/15	2ND CITY SUBMITTAL

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

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS
NODE #:CCR-23

MARSDEN PARK LANE AND LIGHTFIELD LN

HUB AREA
CINCO RANCH - HGCW

SHIFT JOB NUMBER
150602

SHEET TITLE
AERIAL

SHEET NUMBER
A1.0

PAGE
4 OF 14

PLOT SCALE: 1/1" = 24'X36'; 1/2" = 11'X17'



SITE PHOTO (EXISTING)

N.T.S.

PLAN CHECK #

CASE #

KEYNOTE	KEYNOTE LEGEND DESCRIPTION	DETAIL
A01	PROPOSED CROWN CASTLE OMNI ANTENNA	16'D1.1
A02	PROPOSED CROWN CASTLE 2" U.G. CONDUIT (APPROXIMATE LOCATION F.V.)	2'D1.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNIT INSIDE EQUIPMENT CABINET	18'D1.1
A04	PROPOSED NEW METAL SUNKLINE POLE	26'D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER WALK	6'D1.2
A06	PROPOSED CROWN CASTLE NODE IDENTIFICATION SIGNAGE	36'D1.2
A07	PROPOSED CROWN CASTLE EQUIPMENT CABINET	18'D1.1
A08	PROPOSED CROWN CASTLE PIER FOUNDATION	12'D1.1
A09	PROPOSED ELECTRICAL HAND HOLE	

KEYNOTE	KEYNOTE LEGEND DESCRIPTION	DETAIL
E01	PROPOSED POWER METER MOUNTED TO EQUIPMENT CABINET (DISTRIBUTED PANEL AND DISCONNECT)	18'D1.1
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 CURBS, 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 HANDSCAPES DISTURBED OR DESTROYED AS A RESULT OF CONSTRUCTION SHALL BE REPLACED WITH LIKE SIZE AND SPECIES.
4. CONTRACTOR TO HAND LOCATE EX. IRRIGATION PRIOR TO EXCAVATION.
5. SITE PLAN IS A DIAGNOSTIC 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 23

GPS COORDINATES:

LAT: 25.704744

LONG: -96.789867

POLE TYPE

LIGHT POLE

POLE U #

UPPER ANTENNA RAD CENTER: 36' - 6" A.P.G.

LOWER ANTENNA RAD CENTER: 36' - 6" A.P.G.

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

APPROVED:

Development Coordinator

DATE

11/1/16



CROWN CASTLE
 800 E. JOHN CARPENTER PWAY
 SUITE 200
 IRVING, TX 75062

RECORD DRAWINGS (ISSUE DATE): 10/19/16



Shift Companies, LLC
 17111 KENT 207A ROAD
 SCOTTSDALE, ARIZONA 85257
 PH: 480.349.8000
 FAX: 480.349.8100

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

NO.	DATE	COMMITMENT
10/18/16		CITY COMMENTS

PROJECT NAME
 CINCO RANCH EXPANSION

NODE ADDRESS

NODE #CCR-23

MARSDEN PARK LANE
 AND LIGHTFIELD LN

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER

150602

DRAWN BY: SA

CHECKED BY: CM

SHEET TITLE

SITE PLAN, EQUIPMENT

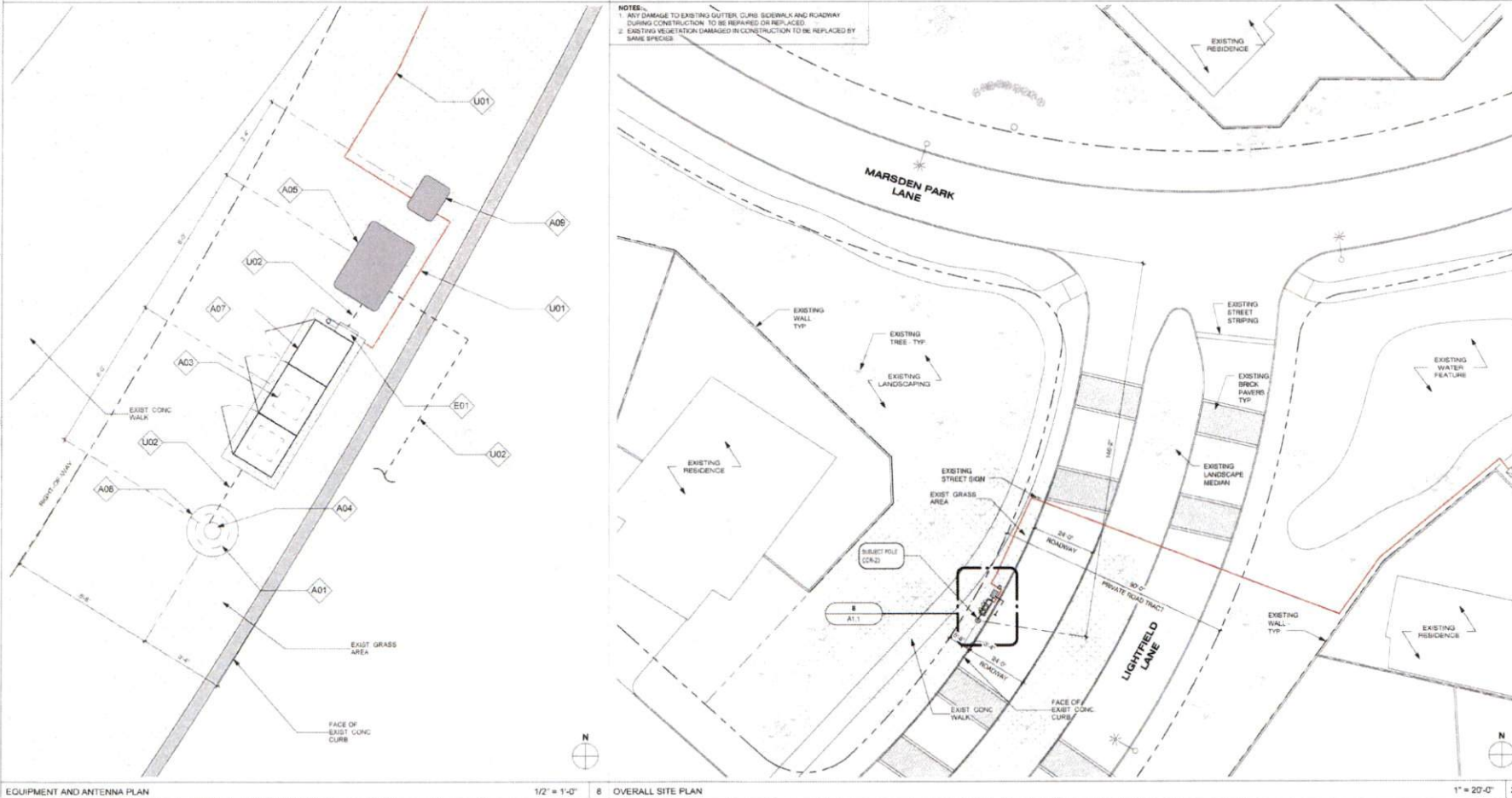
AND ANTENNA PLAN

SHEET NUMBER

PAGE

A1.1 5 OF 14

PLOT SCALE: 1"11 @ 24"X30"; 1:2 @ 11"X17"



EQUIPMENT AND ANTENNA PLAN

1/2" = 1'-0"

8 OVERALL SITE PLAN

1" = 20'-0"

20

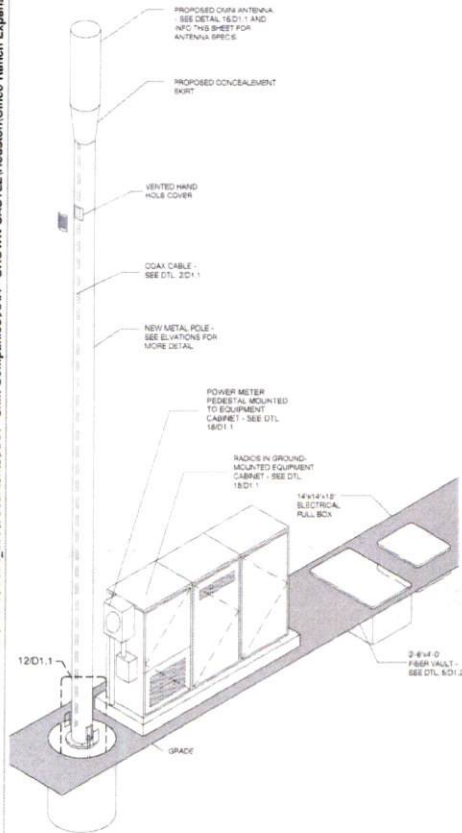
PLAN CHECK #

CASE #

C:\Users\nebe_000\Documents\AAA - Crown Castle Houston\Cinco Ranch Expansion\Sites CCR-23 - Project - 12.14.15.rvt

10/17/2016 1:14:33 PM

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 OMNI ANTENNA	16D1.1
A02	PROPOSED CROWN CASTLE 2' U.G. CONDUIT (APPROXIMATE LOCATION, F.V.)	2D1.1
A03	PROPOSED CROWN CASTLE REMOTE RADIO UNITS INSIDE EQUIPMENT CABINET	16D1.1
A04	PROPOSED NEW METAL SLIMLINE POLE	3D1.1
A05	PROPOSED CROWN CASTLE UNDERGROUND CONC. FIBER VAULT	6D1.2
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 (DISTRIBUTED PANEL AND DISCONNECT)	16D1.1

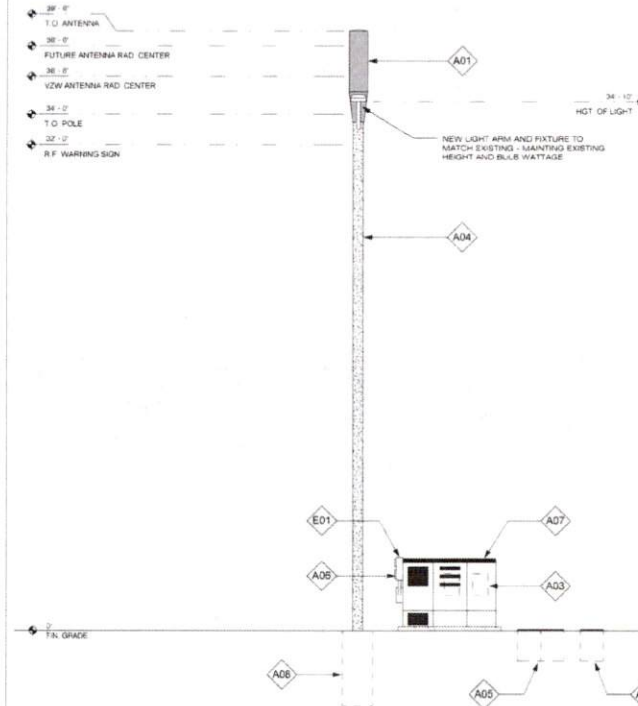
MODEL: ASPHENCOL - 252UT356R12F.kys
LENGTH: 48'
WIDTH: 14.6" DIA
DEPTH: N/A
WEIGHT: 38.1 LBS

PROPOSED PANEL ANTENNA SPECS

PROPOSED POLE WIDTH = 8" Ø
PROPOSED POLE HEIGHT = 34' - 0"
1" 4-Ø ANTENNA AND
1-Ø ANTENNA MOUNT

POLE INFO

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



POLE ELEVATION (PROPOSED)

SCALE: 1/4" = 1'-0" 20



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

RECORD DRAWINGS ISSUE DATE: 10/16/16



Shift Companies, LLC
7031 KERRY VISTA ROAD
SCOTTSDALE, ARIZONA 85257
PH: 480.244.2600
FAX: 480.244.0433

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RELEASE	
DATE	SUBMITTAL
6/23/16	1ST CITY SUBMITTAL
10/16/16	2ND CITY SUBMITTAL

REVISIONS	
NO.	DATE
	10/16/16
	CITY COMMENTS

PROJECT NAME
CINCO RANCH EXPANSION

NODE ADDRESS

NODE #:CCR-23

MARSDEN PARK LANE
AND LIGHTFIELD LN

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER

150602

SHEET TITLE

POLE ELEVATION,
PROPOSED

SHEET NUMBER

A1.2

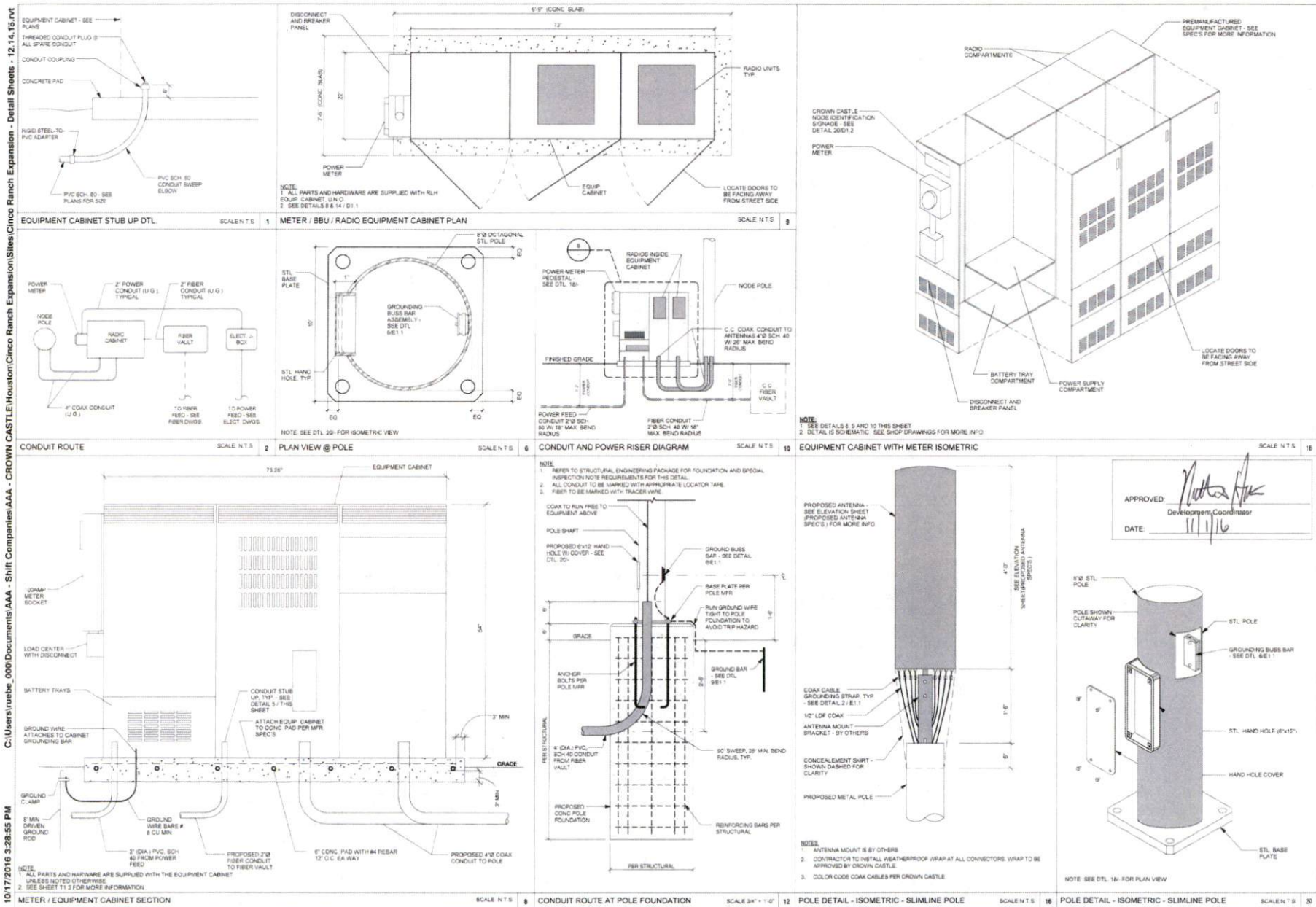
PAGE

6 OF 14

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

PLAN CHECK #

CASE #



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

RECORD DRAWINGS ISSUE DATE: 10/18/16

SHIFT

Shift Companies, LLC
7311 E. NORTH RIVER ROAD
SCOTTSDALE, ARIZONA 85170
PH: 480.354.0600
FAX: 480.354.0400

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DATE	SUBMITTAL
8/28/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

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

PROJECT NAME
CINCO RANCH EXPANSION

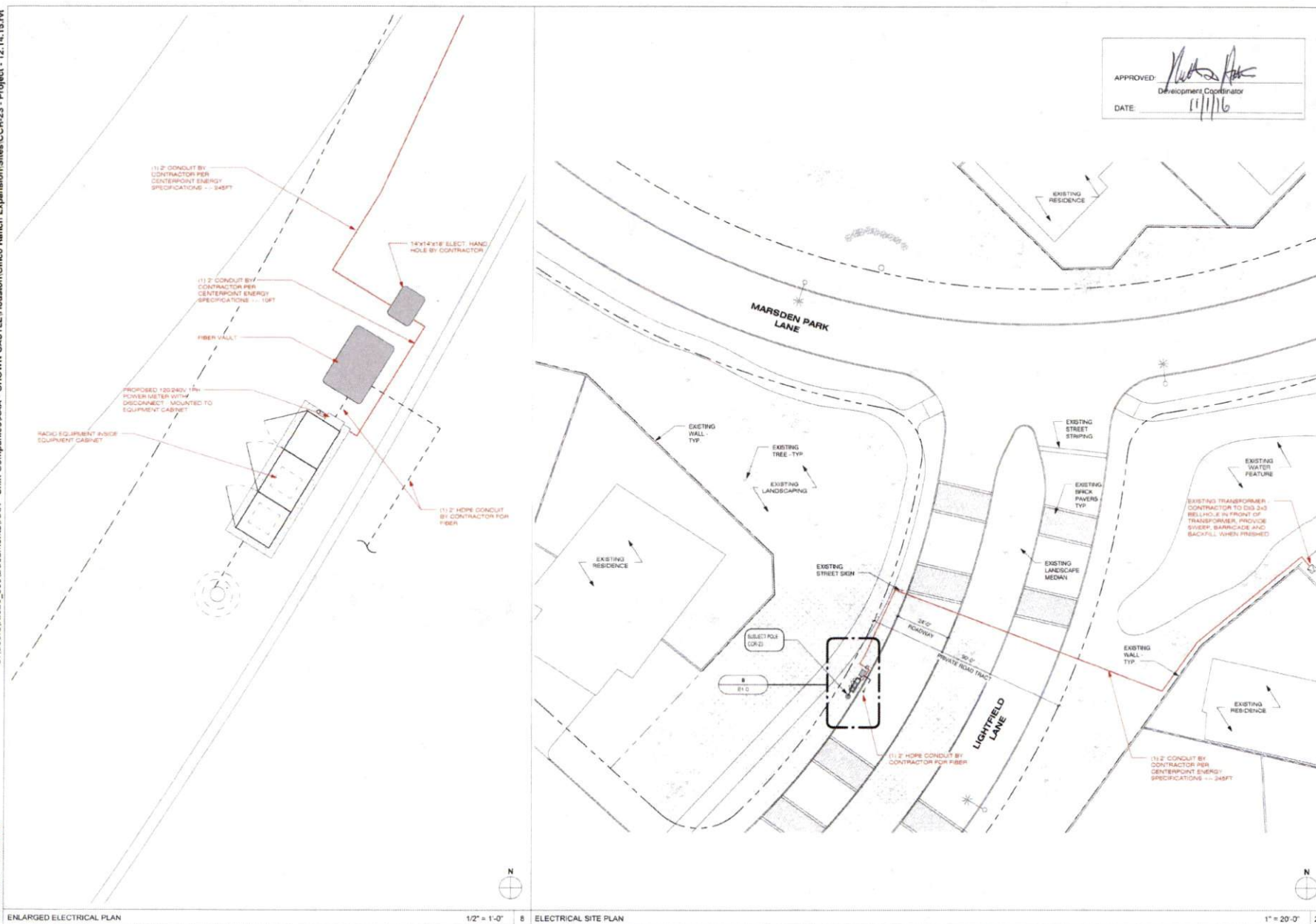
HUB AREA
CINCO RANCH - HGCW

SHEET NUMBER **150602** IN HOUSE
DRAWN BY: RA
CHECKED BY: CN

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER **D1.1** PAGE **7 OF 14**

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



APPROVED: 
Development Coordinator

DATE: 11/1/16



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

RECORD DRAWINGS ISSUE DATE: 10.18.14

SHIFT

Shift Companies, LLC
7332 E. MONTE VISTA ROAD
SCOTTSDALE, ARIZONA 85261
tel: 480.264.0625
fax: 480.264.0663

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RELEASE	
DATE	SUBMITTAL
6.02.16	1ST CITY SUBMITTAL
10.15.16	2ND CITY SUBMITTAL

REVISIONS		
NO.	DATE	COMMENT
	10.18.18	QTY COMMENTS

PROJECT NAME

CINCO RANCH EXPANSION

NODE ADDRESS

NODE #:CCB-23

MARSDEN PARK LANE
AND LIGHTFIELD LN

HUB AREA

CINCO RANCH - HGCW

SHIFT JOB NUMBER

IN HOUSE

150602

DRAWN BY:

SHEET TITLE

ELECTRICAL PLANS

SHEET NUMBER

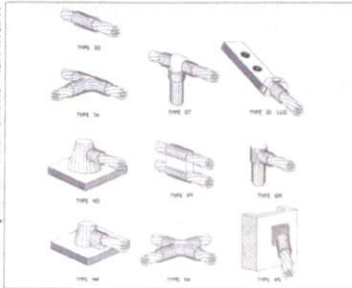
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E1.0 9 OF 14

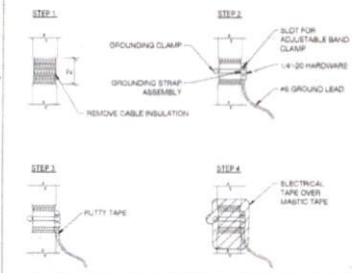
PLOT SCALE: 1:1 @ 24"x36"; 1:2 @ 11"x17"

☐ **THE ANSWER**

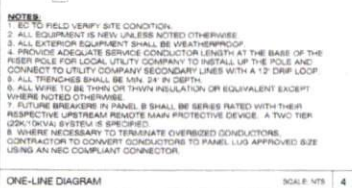
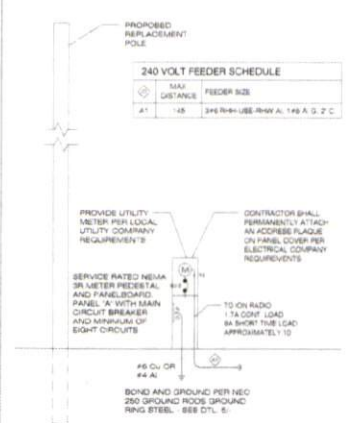
Page 4



CADWELD DETAILS SCALE: NTS 1

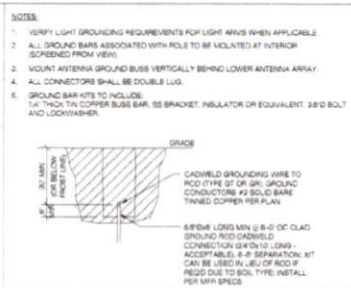


COAXIAL CABLE GROUNDING SCALE: NTS 2



ONE-LINE DIAGRAM SCALE: NTS 4

NOTES:
1. TO FIELD VERIFY SITE CONDITION.
2. ALL EQUIPMENT IS NEW UNLESS NOTED OTHERWISE.
3. ALL EXTERIOR EQUIPMENT SHALL BE WEATHERPROOF.
4. PROVIDE ADEQUATE SERVICE CONDUCTOR LENGTH AT THE BASE OF THE FIBER POLE FOR LOCAL UTILITY COMPANY TO INSTALL UP THE POLE AND CONNECT TO UTILITY COMPANY SECONDARY LINES WITH A 1" DRIP LOOP.
5. ALL TRENCHES SHALL BE MIN. 24" IN DEPTH.
6. ALL WIRE TO BE THIN OR THINNY INSULATION OR EQUIVALENT EXCEPT WHERE NOTED OTHERWISE.
7. FUTURE BREAKERS IN PANEL 8 SHALL BE SERIES RATED WITH THEIR RESPECTIVE UPSTREAM REMOTE MAIN PROTECTIVE DEVICE. A TWO-TIER (200/100A) SYSTEM IS SPECIFIED.
8. WHERE NECESSARY TO TERMINATE OVERSIZED CONDUCTORS, CONTRACTOR TO CONVERT CONDUCTORS TO PANEL LUGS APPROVED SIZE USING AN NEC COMPLIANT CONNECTOR.



GROUND ROD DETAIL SCALE: NTS 9

PANEL A

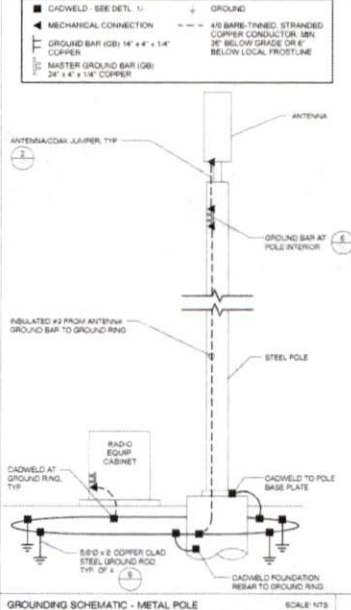
NO.	CB	CIRCUIT DESCRIPTION	KVA LOAD	NO.	CB	CIRCUIT DESCRIPTION	KVA LOAD
1	-	SPACE	0.00	2	201	RADIO EQUIPMENT	1.05
2	-	SPACE	0.00	4	201	RADIO EQUIPMENT	1.05
3	-	SPACE	0.00	6	201	SPACE	0.00
7	-	SPACE	0.00	8	-	SPACE	0.00

TOTAL CONNECTED KVA BY PHASE: 11.8 11.8
TOTAL CONNECTED AMPS BY PHASE: 11.8 11.8

	CONTR. KVA	CALC. KVA
LIGHTING	0	0 (125%)
LARGEST MOTOR	0	0 (125%)
OTHER MOTORS	0	0 (125%)
RECEPTACLES	0	0 (125%)
TOTAL KVA	2.82	2.82

PER NEC 210.4(B)
PROVIDE COMMON TRIP HANDLES FOR ALL MAIN-ON/OFF CONDUIT RUNS

ELECTRICAL PANEL SCHEDULES SCALE: NTS 6



GROUNDING SCHEMATIC - METAL POLE SCALE: NTS 8

POWER FEEDER SCHEDULE

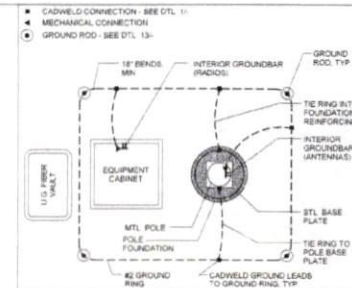
LENGTH	SIZE (AWG/KCMIL)	GROUND SIZE	CONDUIT SIZE
300	2	2	2"
300	1	2	2"
410	1/0	2	2"
550	3/0	2	2"
680	3/0	2	2"
800	4/0	1	2"
900	200	1/0	2 1/4"
1050	300	2/0	2 1/2"

FEEDER SCHEDULE SCALE: NTS 15

FAULT CURRENT CALCULATION

Fault Point	Panel	Source (Fault Point)	Source I (amps)	Conduit Type	Wire/Bus Size	C' value	E (volts)	L (length)	f	M	Isc	AC Rating
1	UTILITY COMPANY'S PEDESTAL	1	22000	NM	1 Set(s) of 2	3750	240	200	0.851	0.64	11884	22,000
2	Panel-A @ 20'	1	22000	NM	1 Set(s) of 2	3750	240	1000	4.256	0.19	4185	10,000
3	Panel-A @ 100'	1	22000	NM	1 Set(s) of 2	3750	240	1500	6.385	0.14	2670	10,000
4	Panel-A @ 200'	1	22000	NM	1 Set(s) of 2	3750	240	2000	8.513	0.11	2213	10,000

FAULT CURRENT CALCULATION SCALE: NTS 20



EQUIPMENT GROUNDING SCHEMATIC DTL SCALE: NTS 17

- NOTES:
1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL OTHER APPLICABLE LOCAL CODES.
2. CONTRACTOR SHALL OBTAIN ALL PERMITS FOR ALL PERMIT FEES AND SCHEDULE ALL REQUIRED INSPECTIONS. CONTRACTOR SHALL OBTAIN LOCAL POWER COMPANY APPROVAL AND COORDINATE SERVICE ENTRANCE REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY SERVICE LOCATION AND CONTACT PROJECT MANAGER WITH DISCREPANCIES FROM PLAN.
4. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL DESCRIBED ON THIS DRAWING AND ALL ITEMS INCIDENTAL TO COMPLETING AND PRESENTING THE PROJECT AS FULLY OPERATIONAL. ALL ELECTRICAL TIES SHALL BE ALL APPROVED OF LISTED.
5. CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT UNDERGROUND AND IN CONDUIT ABOVE GROUND.
6. PROVIDE 1/2" SCHEDULE 40 PVC UNDERGROUND CONDUIT WITH FULL WAVE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND JUNCTION BOX. CONTRACTOR SHALL DETERMINE REQUIRED NUMBER AND LOCATION OF JUNCTION BOXES PER UTILITY STANDARDS.
7. USE 1" SCHEDULE 40 PVC CONDUIT AND APPROXIMATE FITTINGS TO ENTER AND LEAVE CENTER.
8. CONTRACTOR TO NOTIFY ALL APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION AND SHALL PROVIDE AND MAINTAIN A TRAFFIC CONTROL PLAN PER NOTED REQUIREMENTS.
9. CONTRACTOR TO LOCATE ALL UTILITIES IN PROJECT AREA PRIOR TO CONSTRUCTION THROUGH BLUE STAKE.
10. VERIFY DEPTH OF EXISTING UTILITY CROSSING POINTS VIA APPROVED NOTHOLDING METHOD AND NOTE ON PLAN SETS FOR AS-BUILT CLOSE OUT.
11. NOTE DEPTH AND LOCATION OF ALL INSTALLED UTILITIES ON AS-BUILT RECORD DRAWINGS.
12. IF EXISTING IMPLICATION LINES ARE ENCOUNTERED, CONTRACTOR SHALL NOTIFY OWNER PRIOR TO DISTURBING OR MODIFYING.
13. CONTRACTOR SHALL NOT RELOCATE EXISTING EQUIPMENT OR POLE LOCATIONS WITHOUT WRITTEN APPROVAL FROM CROWN CASTLE AND PROJECT ENGINEER.
14. MATERIAL SUBSTITUTIONS ARE SUBJECT TO CROWN CASTLE AND ENGINEERING REVIEW PRIOR TO CONSTRUCTION.

ELECTRICAL NOTES SCALE: NONE 18

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

ELECTRICAL NOTES SCALE: NONE 18



CROWN CASTLE
CROWN CASTLE
800 E. JOHN CARPENTER Pkwy.
SUITE 300
IRVING, TX 75060

RECORD DRAWINGS ISSUE DATE: 10/18/18



Shift Companies, LLC
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IRVING, TX 75060
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RELEASE

DATE	SUBMITTAL
5/23/16	1ST CITY SUBMITTAL
10/18/16	2ND CITY SUBMITTAL

REVISIONS

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

PROJECT NAME
CINCO RANCH EXPANSION

HUB AREA
CINCO RANCH - HGCW

SHIFT JOB NUMBER
158062

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E1.1

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PLOT SCALE: 1" = 24' X 36' 1/2" = 11' X 17'