

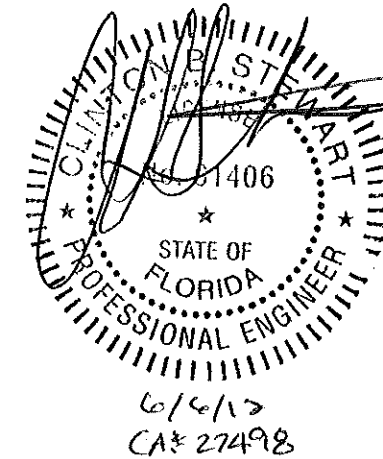


ADMINISTRATIVE APPROVAL 08-09-12
APPROVED



VERIZON WIRELESS SITE NUMBER & NAME # 68126 ATC SPECTRASITE COPPOLA TOWER

PROJECT ADDRESS
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

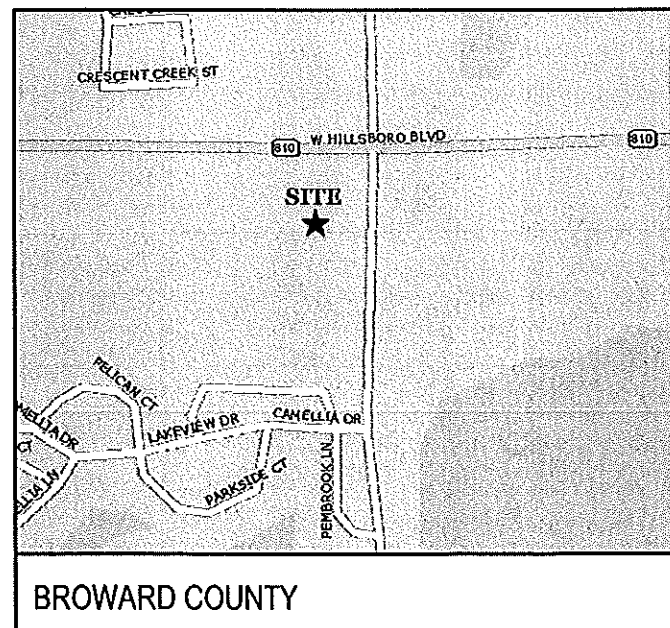


verizon wireless
14055 RIVEREDGE DRIVE
SUITE 600
TAMPA, FL 33637

SHEET INDEX

SHEET NO.	DESCRIPTION
C1	COVER SHEET
C2	ELEVATION & ANTENNA DETAILS
C3	RF DATA & SECTOR CONFIGURATION SHEET
C4	DETAIL SITE PLAN
C5	ELECTRICAL & GROUNDING DETAILS
C6	GROUNDING DETAILS

VICINITY MAP



PROJECT SUMMARY

TOWER COORDINATES:
LATITUDE: 26.316853
LONGITUDE: -80.177778

SITE ADDRESS:
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

PARCEL ID: 484205070022

REV	DATE	DESCRIPTION
3	06/06/12	ADD ELECTRICAL DWGS.
2	05/15/12	REVISED BLDG. CODE
1	04/02/12	FINAL
0	01/26/12	REVIEW

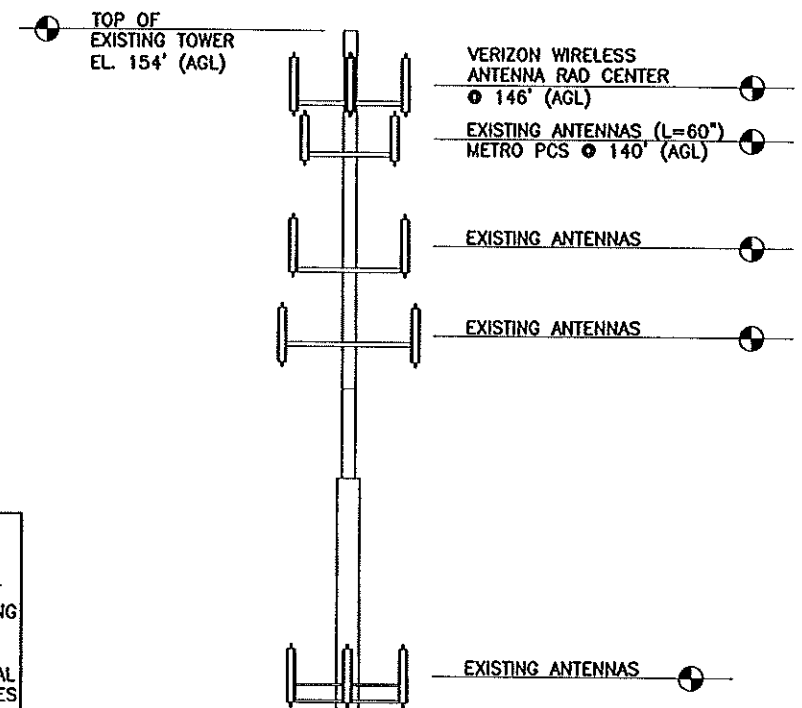
DRAWN BY: SDE

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ATC SPECTRASITE
COPPOLA TOWER

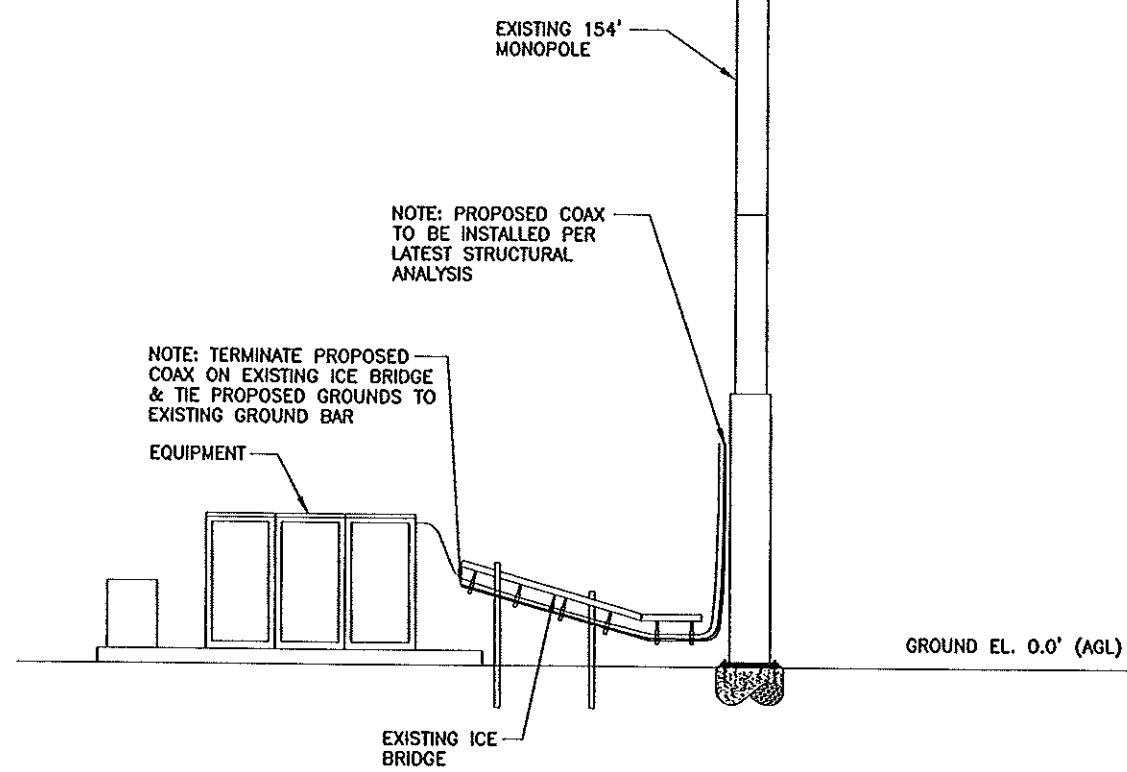
SITE No.: 68126
SITE ADDRESS
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

SHEET TITLE
COVER SHEET
SHEET NUMBER
C-1

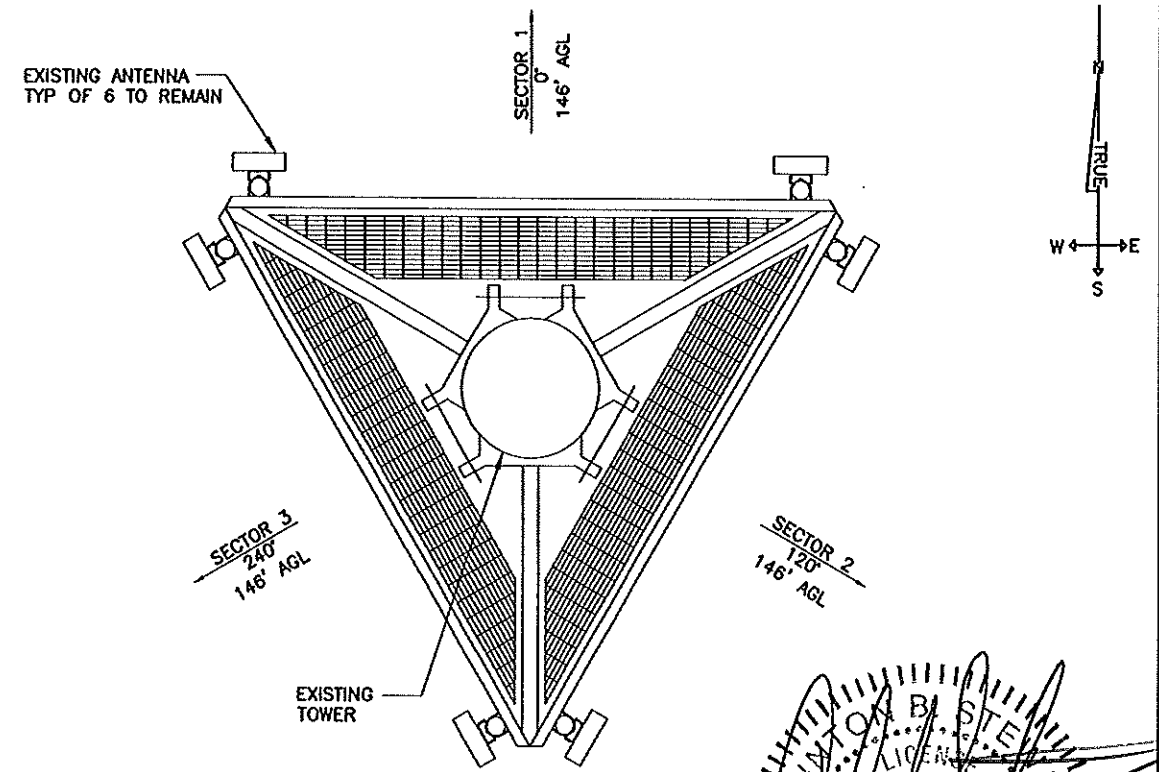


NOTE:
CONTRACTOR TO FIELD VERIFY ANTENNA MOUNT CONFIGURATION AND PROVIDE MOUNTS OR ADDITIONAL HARDWARE IF REQUIRED TO SUPPORT PROPOSED ANTENNAS. ALL ANTENNAS & MOUNTING HARDWARE SHALL CONFORM TO DESIGN REQUIREMENTS PER FLORIDA BUILDING CODE (2010 EDITION) AND ANSI/TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS; BASIC WIND SPEED 170 MPH, 3 SECOND GUST.

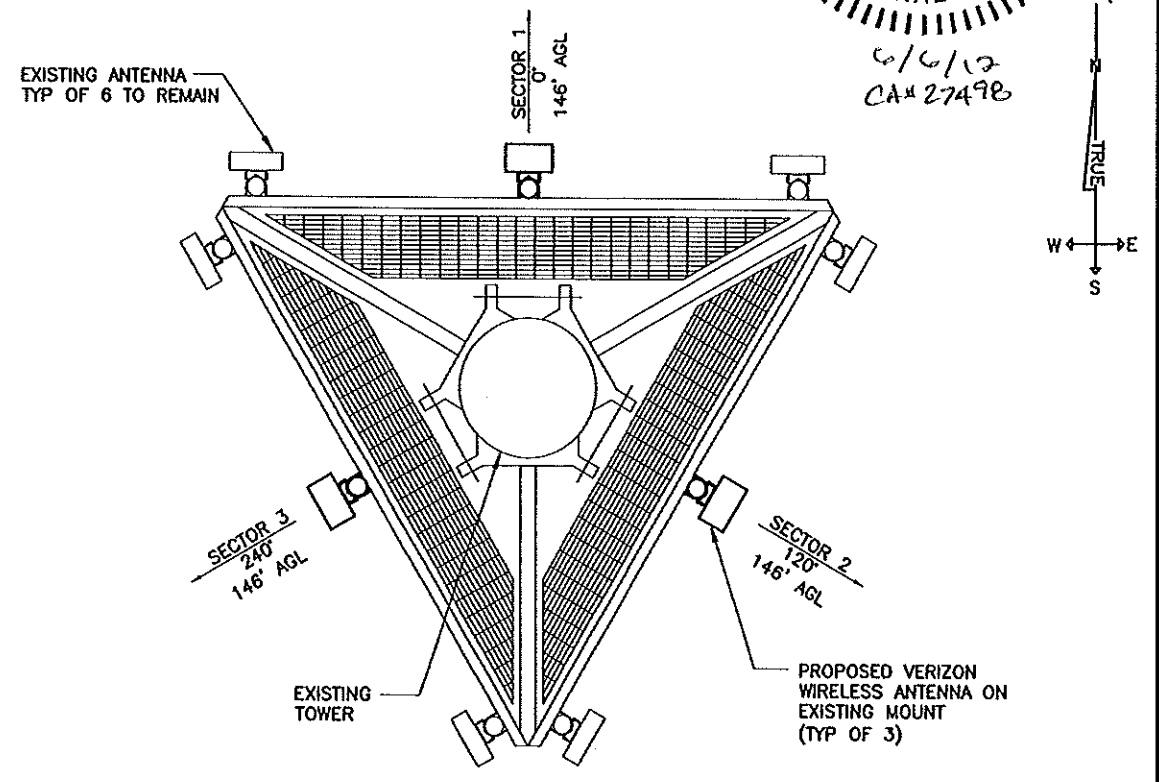
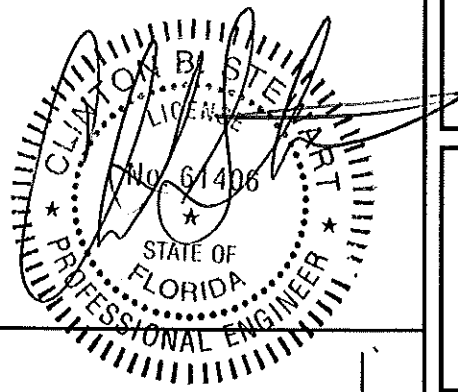
NOTE:
AZIMUTH INFO TAKEN FROM VZW RF SITE DESIGN DATA. TOWER HEIGHTS AND ANTENNA HEIGHTS TAKEN FROM RECENT TOWER SURVEY DATA.



TOWER ELEVATION
NTS



EXISTING ANTENNA MOUNT DETAIL
NTS



PROPOSED ANTENNA MOUNT DETAIL
NTS

EXCELL COMMUNICATIONS, INC.
EXCELL COMMUNICATIONS, INC.
6247 AMBER HILLS ROAD
BIRMINGHAM, ALABAMA 35173
PHONE: 205.956.0196

verizon wireless
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0	01/26/12	REVIEW

DRAWN BY: SDE

CHECKED BY: JAL

ATC SPECTRASITE COPPOLA TOWER

SITE No.: 68126
SITE ADDRESS
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

SHEET TITLE
ELEVATION & ANTENNA DETAILS

SHEET NUMBER
C-2

GENERAL NOTES:

1. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE & ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS PERFORMED.
2. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
4. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.

STRUCTURAL NOTE:

1. DESIGN REQUIREMENTS FOR ANTENNA SUPPORTING STRUCTURES, ANTENNAS, EQUIPMENT CABINETS, AND PPC CABINETS PER FLORIDA BUILDING CODE (2010 EDITION) AND THE ANSI/TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS; WIND SPEED REQUIREMENTS OF 170 MPH, 3 SECOND GUST.

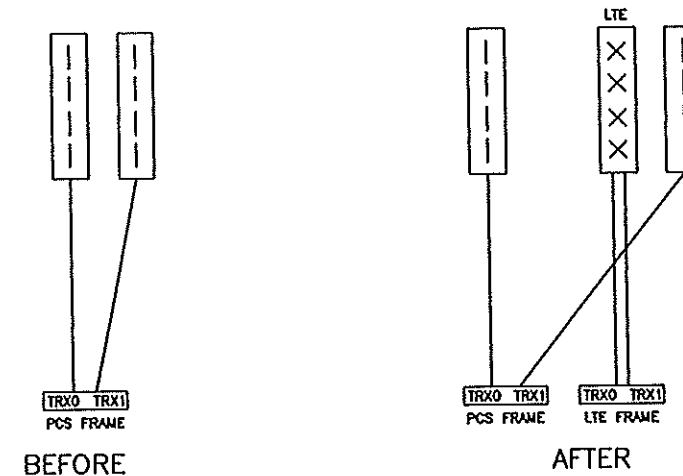
ANTENNA NUMBER	RAD CENTER	ANTENNA TIP HEIGHT	AZIMUTH	DOWN TILT	ANTENNA MFG/ MODEL NUMBER	COAX LABEL COLOR/BANDS	COAX DIAMETER
D1	146'	149'	0°	0°	CSS / X7-665-4	RED-3	1-5/8"
						RED-4	1-5/8"
D2	146'	149'	120°	0°	CSS / X7-665-4	BLUE-3	1-5/8"
						BLUE-4	1-5/8"
D3	146'	149'	240°	0°	CSS / X7-665-4	GREEN-3	1-5/8"
						GREEN-4	1-5/8"

NOTE: MARKING TAPE MUST BE APPLIED AT TOP OF FEED LINES AND AT BASE OF TOWER

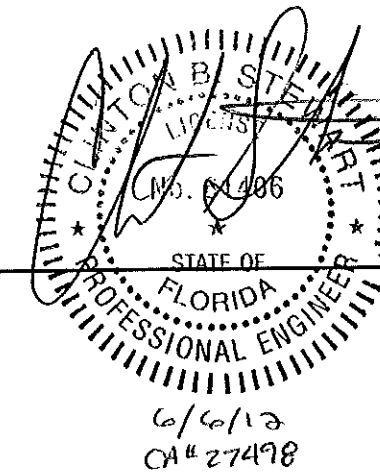
NOTE: VERIFY ALL ANTENNA INFORMATION WITH VERIZON WIRELESS PRIOR TO CONSTRUCTION

NOTE: DESIGN REQUIREMENTS FOR ANTENNA SUPPORTING STRUCTURES, ANTENNAS, EQUIPMENT CABINETS, AND PPC CABINETS PER FLORIDA BUILDING CODE (2010 EDITION) AND THE ANSI/TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS; WIND SPEED REQUIREMENTS OF 170 MPH, 3 SECOND GUST.

RF LTE DATA



SECTOR CONFIGURATION



14055 RIVEREDGE DRIVE
SUITE 600
TAMPA, FL 33637

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1	04/02/12	FINAL
0	01/26/12	REVIEW

DRAWN BY: SDE

CHECKED BY: JAL

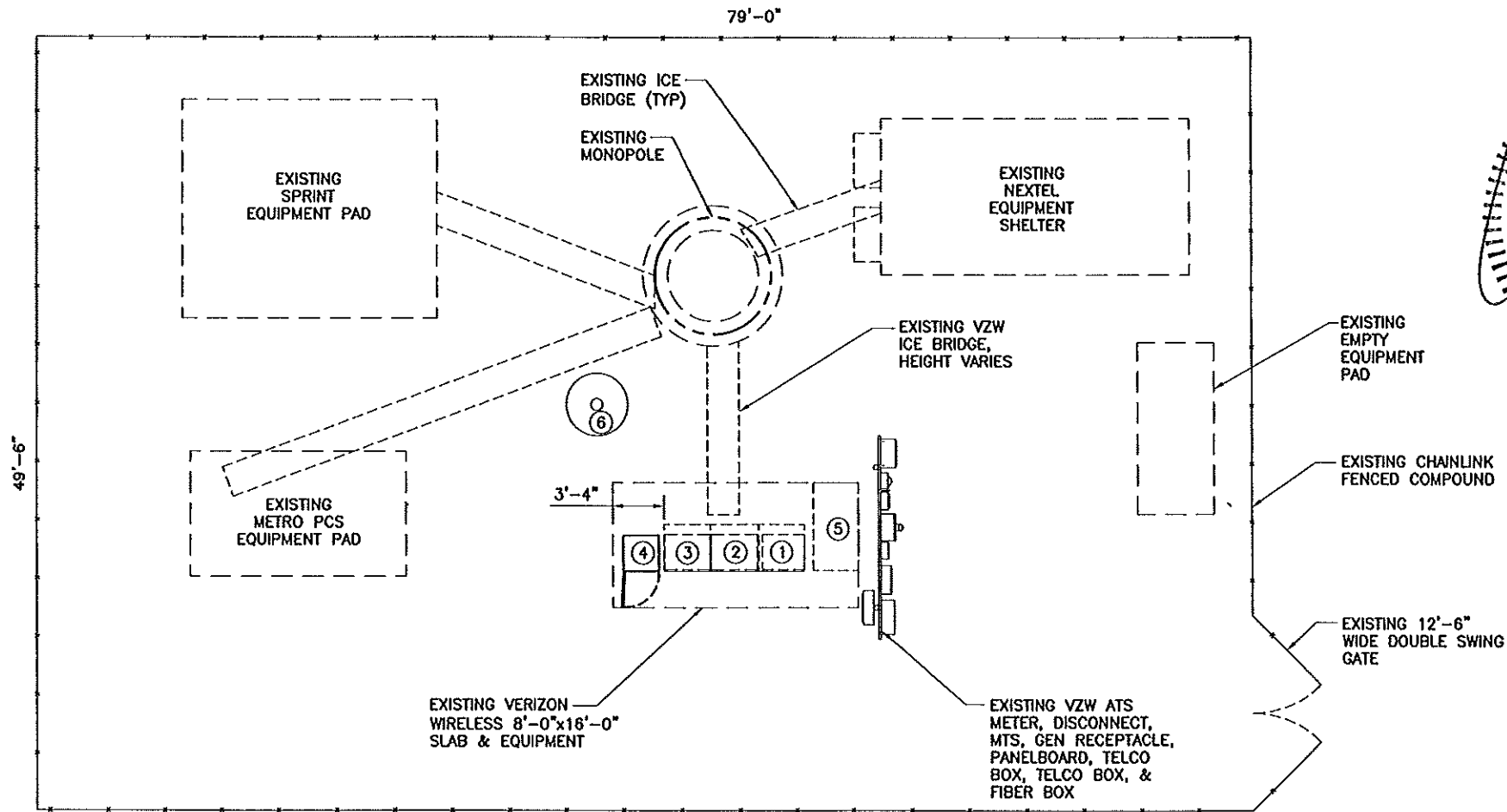
ATC SPECTRASITE
COPPOLA TOWER

SITE No.: 68126
SITE ADDRESS

6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

SHEET TITLE
RF DATA & SECTOR
CONFIGURATION
SHEET

SHEET NUMBER
C-3



CLAYTON B. STEWART
 No. 61406
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 6/6/12
 CA# 27498

LEGEND

- ① EBRE BATTERY
- ② BTS CABINET
- ③ BTS CABINET
- ④ LTE
- ⑤ GENERATOR W/ 120 GAL BELLY TANK
- ⑥ LPG TANK, 120 GAL

NOTE:
NEW LTE CABINET TO BE MOUNTED ON NEW PLINTH. CONTRACTOR TO MATCH EXISTING PLINTH DESIGN.

DETAIL SITE PLAN
 22"x34" SCALE: 3/16" = 1'-0"
 11"x17" SCALE: 3/32" = 1'-0"

THIS PLAN IS BASED ON SITE RECONNAISSANCE PERFORMED BY EXCELL COMMUNICATIONS, INC. DATED 11/15/11. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.



EXCELL COMMUNICATIONS, INC.
 6247 AMBER HILLS ROAD
 BIRMINGHAM, ALABAMA 35173
 PHONE: 205.956.0198



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DRAWN BY: SDE

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**ATC SPECTRASITE
 COPPOLA TOWER**

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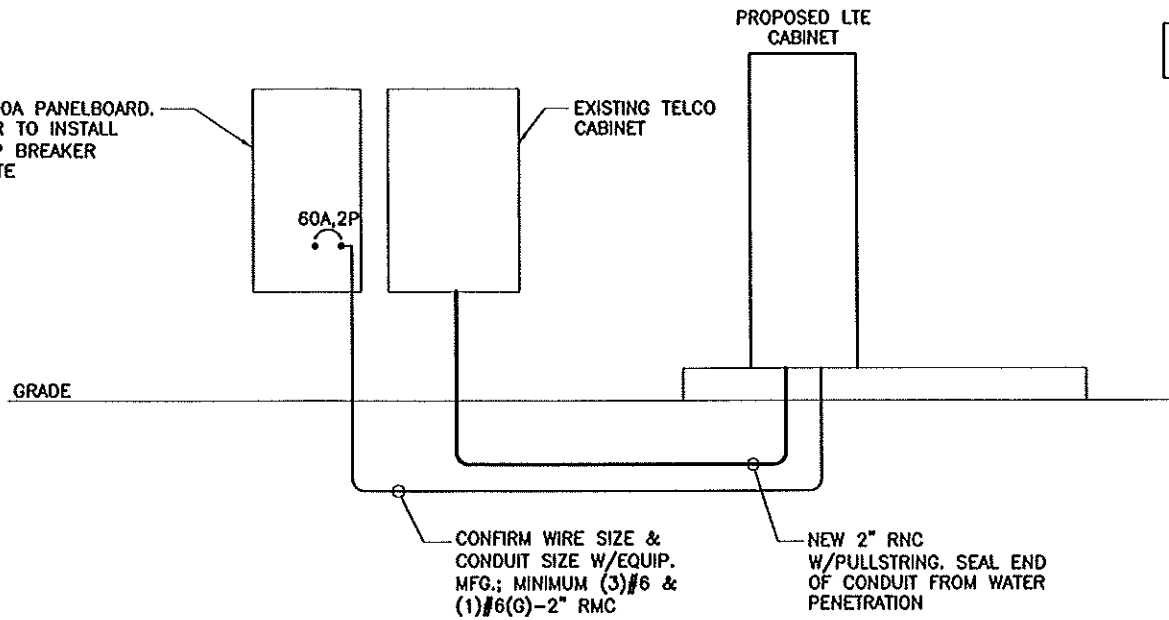
SHEET TITLE
**DETAIL SITE
 PLAN**

SHEET NUMBER
C-4

ELECTRICAL NOTES:

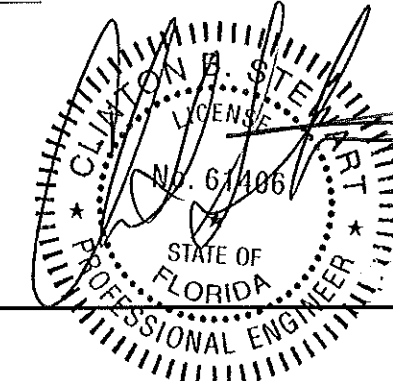
1. ALL POWER CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN INSULATION.
2. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH THE 2008 EDITION OF THE NATIONAL ELECTRIC CODE.
3. ALL CONDUIT BURIAL DEPTHS SHALL COMPLY WITH NEC REQUIREMENTS.
4. LTE CABINET AND ANY NEW PLINTH ADDITIONS OR EXTENSIONS TO BE DIRECTLY BONDED TO EXISTING EQUIPMENT GROUND LOOP WITH #2 AWG TINNED COPPER GROUND CONDUCTORS, CONNECTED TO OPPOSING CORNERS. CONNECTIONS SHALL BE MADE WITH 2 HOLE MECHANICAL LUGS OR EXOTHERMIC WELDS. BOND TO CABINET AND PLINTH AT LOCATIONS SPECIFIED BY MANUFACTURERS ONLY.
5. CONTRACTOR TO VERIFY EXISTING MAIN BONDING JUMPER IN SERVICE DISCONNECT SWITCH.
6. UNLESS OTHERWISE SPECIFIED ALL CONDUIT SHALL BE UV RESISTANT SCHEDULE 40 PVC OR LIQUIDTITE FLEXIBLE CONDUIT (ALL LIQUIDTIGHT FLEXIBLE CONDUIT RUNS OVER 6' MUST BE METALLIC, AS PER NEC ARTICLES 350 AND 356).
7. ALL ABOVE GROUND CONDUIT & ELBOWS SHALL BE METALLIC.
8. SINGLE LINE DIAGRAM DEPICTS SCENARIO OF VACANT BREAKER SLOT AND SUFFICIENT CAPACITY FOR A 60A BREAKER. CONTRACTOR SHALL FIELD DETERMINE APPROPRIATE POWER CONFIGURATION ON A SITE BY SITE BASIS.

EXISTING 200A PANELBOARD.
CONTRACTOR TO INSTALL
(1) 60A, 2P BREAKER
FOR NEW LTE



NOTE: DIAGRAM ORIENTATION IS SHOWN FOR REFERENCE ONLY

SINGLE LINE DIAGRAM
NOT TO SCALE



PANEL "A" SCHEDULE

PANEL RATING 120/240V, 1Ø, 200A

MAIN BREAKER 200A-2P, 1Ø

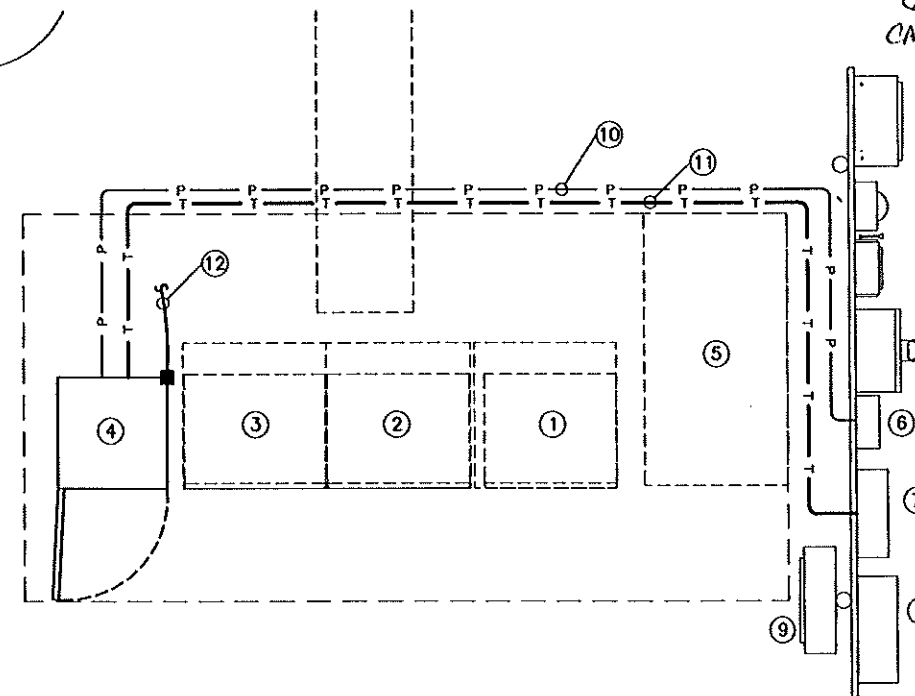
POS.	SERVING	BREAKER	WIRE SIZE & TYPE	POS.	SERVING	BREAKER	WIRE SIZE & TYPE
1	EXISTING	20A-2P	EXISTING	2	EXISTING	80A-2P	EXISTING
3				4			
5	EXISTING	20A-1P	EXISTING	6	EXISTING	100A-2P	EXISTING
7	EXISTING	80A-2P	EXISTING	8			
9				10	EXISTING	80A-2P	EXISTING -
11	EXISTING	80A-2P	EXISTING	12			
13				14	NEW LTE CABINET	60A-2P	(3)#6 & (1)#6(G)-2"C *
15	EXISTING	20A-1P	EXISTING	16			

- NOTES:**
1. * ALL WIRE AND CONDUIT SIZES TO BE COORDINATED WITH THE EQUIPMENT CABINET MANUFACTURER SPECIFICATIONS PRIOR TO INSTALLATION.
 2. PANEL SCHEDULE IS FOR REFERENCE ONLY. EXACT BREAKER LOCATIONS MAY VARY ON SITE.

PANEL SCHEDULE
NTS

NOTE:

1. CONDUIT ROUTING IS DIAGRAMMATIC. CONTRACTOR SHALL ROUTE CONDUIT TO ENSURE BEST ROUTE SUITABLE TO EXISTING CONDITIONS



- ① EX. EBRE BATTERY
- ② EX. BTS CABINET
- ③ EX. BTS CABINET
- ④ NEW LTE CABINET
- ⑤ EX. GENERATOR
- ⑥ EXISTING 200A PANELBOARD. INSTALL NEW 60A, 2P BREAKER FOR NEW LTE CABINET. CONFIRM EXACT REQUIREMENTS WITH EQUIP. MFG SPECS PRIOR TO INSTALLATION
- ⑦ EXISTING TELCO CABINET #1
- ⑧ EXISTING TELCO CABINET #2
- ⑨ EXISTING FIBER CABINET
- ⑩ PROVIDE A MINIMUM OF (3)#6 & (1)#6(G)-2" RMC CONFIRM WIRE SIZE & CONDUIT SIZE W/EQUIP. MFG.
- ⑪ NEW 2" RNC WITH PULLSTRING FOR TELCO
- ⑫ NEW #2 AWG SOLID TINNED BARE COPPER BONDING NEW EQUIPMENT CABINET TO EXISTING GROUNDING SYSTEM, PER MFG. SPECS.

ELECTRICAL/GROUNDING PLAN
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"



EXCELL COMMUNICATIONS, INC.
6247 AMBER HILLS ROAD
BIRMINGHAM, ALABAMA 35173
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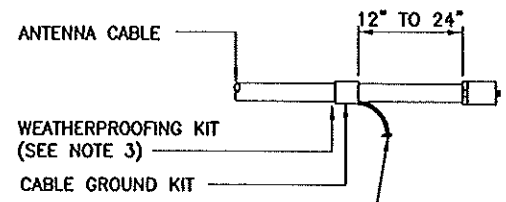
REV	DATE	DESCRIPTION
0	06/06/12	ADD ELECTRICAL DWGS.

DRAWN BY: SDE
CHECKED BY: JAL

**ATC SPECTRASITE
COPPOLA TOWER**

SITE No.: 68126
SITE ADDRESS
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

SHEET TITLE
**ELECTRICAL &
GROUNDING
DETAILS**
SHEET NUMBER
C-5



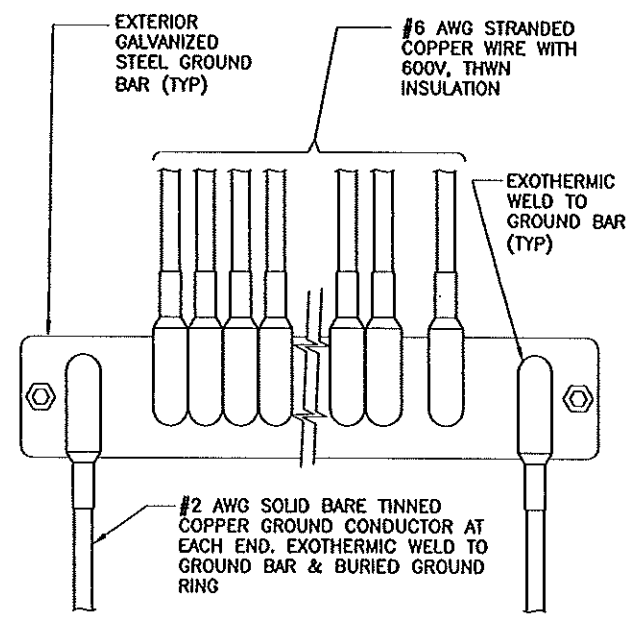
#6 AWG STRANDED COPPER WIRE WITH 600V, THWN INSULATION (GROUNDED TO GROUND BAR) (SEE NOTES 1 & 2)

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE

NOTES:

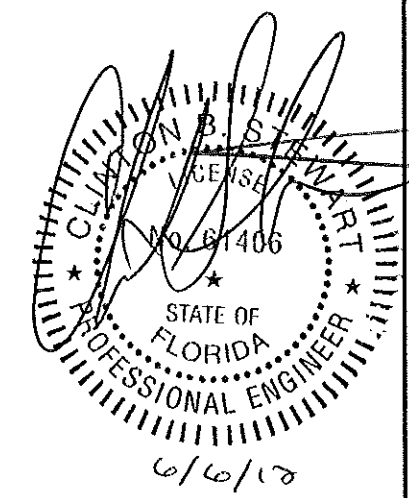
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHERPROOFING SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.

DETAIL 1
NTS



INSTALLATION OF GROUND WIRE TO COAX CABLE GROUND BAR

DETAIL 2
NTS



CA#27498



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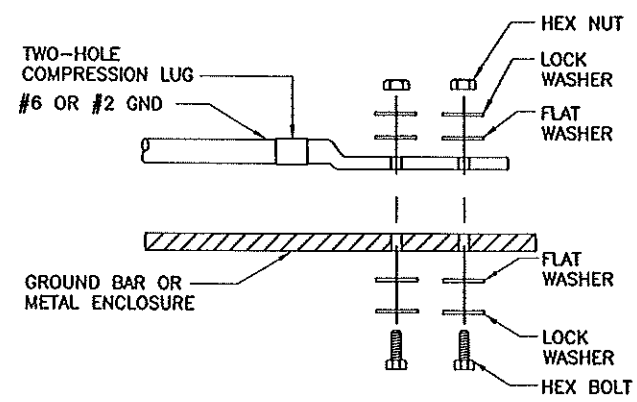
6933 NW 39TH AVENUE
COCONUT CREEK, FL 33073

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

C-6



INSTALLATION NOTES:

1. BOLTS, WASHERS AND NUTS SHALL BE STAINLESS STEEL.
2. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.
3. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT.
4. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND.
5. USE 1/4" HARDWARE FOR ATTACHMENT TO METAL ENCLOSURES & 3/8" FOR ATTACHMENT TO GROUND BARS.

DETAIL 3
NTS