

# Sprint



PROJECT: 2.5 EQUIPMENT DEPLOYMENT  
 SITE NAME: COCONUT CREEK LAKESIDE PARK  
 SITE CASCADE: MI73XC110  
 SITE NUMBER: XXXXXXX  
 SITE ADDRESS: 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063  
 SITE TYPE: 120'-0" MONOPOLE

2.5MHz 120'-0" MONOPOLE

PLANS PREPARED FOR:

6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:

**POWDER RIVER**  
 Development Services, LLC  
 820 WEST INDIANTOWN ROAD  
 SUITE 104  
 JUPITER, FL 33458  
 561.972.5511  
 www.powderriverdev.com  
 CA 30487

ENGINEERING LICENSE

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REVISIONS:	DESCRIPTION	DATE	BY	REV
2.5 FOR REVIEW		3/04/14	JJC	
ISSUED FOR CONSTRUCTION 100%		4/18/14	JJC	0

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 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**TITLE SHEET**

SHEET NUMBER:  
**T-1**

**SITE INFORMATION**

**PROPERTY OWNER:**  
 CITY OF COCONUT CREEK  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

**SITE ADDRESS:**  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

**GEOGRAPHIC COORDINATES:**  
 LATITUDE: 26° 18' 36.11" (26.3101) N  
 LONGITUDE: -80° 11' 57.96" (-80.1994) W

**ZONING JURISDICTION:**  
 CITY OF COCONUT CREEK

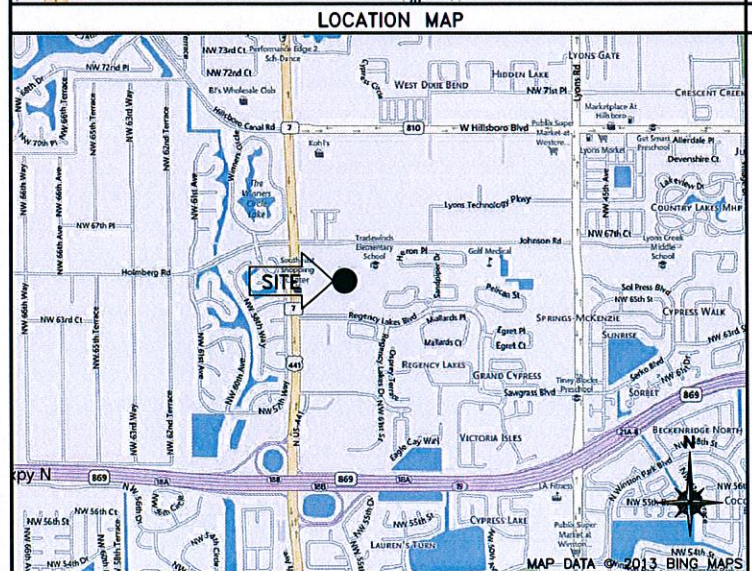
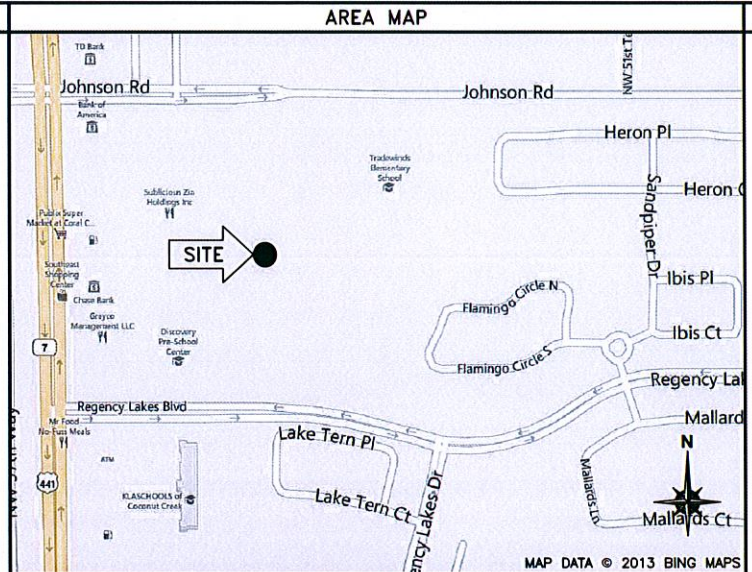
**ZONING DISTRICT:**  
 PUD

**POWER COMPANY:**  
 FP&L  
 (800) 516-994-8227

**AAV PROVIDER:**  
 AT&T  
 (888) 638-2822

**SPRINT CONSTRUCTION MANAGER:**  
 JASON LASKEY  
 6700 N ANDREWS AVE, SUITE 700  
 FORT LAUDERDALE, FL 33309  
 CELL: (305) 321-5655  
 OFFICE: (954) 713-9563

**ENGINEER**  
 POWDER RIVER DEVELOPMENT SERVICES, LLC.  
 820 WEST INDIANTOWN ROAD, SUITE 104  
 JUPITER, FL 33458  
 CONTACT: DAVID ALLEN, PE  
 PHONE: 561.972.5511



**PROJECT DESCRIPTION**

- INSTALL (1) LTE 2.5GHz INTO EXISTING RBS CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRU'S ON TOWER
- INSTALL (27) JUMPERS
- INSTALL (1) HYBRID CABLES

**APPLICABLE CODES**

- ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
- 2010 FLORIDA BUILDING CODE
- 2008 NATIONAL ELECTRICAL CODE (NFPA 70)
- ASCE 7-10 STANDARD
- ANSI/TIA-222-G-2005 STANDARD
- AISC MANUAL OF STEEL CONSTRUCTION

**DRAWING INDEX**

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A-7	EQUIPMENT DETAILS	0
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**SIGNATURE BLOCK**

SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_

SPRINT CONSTRUCTION MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_

RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

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

**ADMINISTRATIVE APPROVAL 05-20-14**

**APPROVED**

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**SECTION 01 100 - SCOPE OF WORK**

**THE WORK:**

SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF. SPRINTMOP AND SPRINT STANDARDS AT THE TIME OF CONSTRUCTION START.

**PRECEDENCE:**

SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE ALONG WITH SPRINT CM APPROVAL.

**SITE FAMILIARITY:**

CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

**ON-SITE SUPERVISION:**

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

**DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:**

THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE MOST CURRENT CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

- A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- B. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING ANY CHANGES FROM THE CONSTRUCTION DOCUMENTS.
- D. CONTRACTOR IS RESPONSIBLE TO MAKE SURE THEY HAVE THE LATEST MOP.

**METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:**

CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN

- A. COAX COLOR CODING SWEEPS AND FIBER TESTING TS-0200 AND EL-0568
- B. CABLE LABELING EN-2012-00
- C. APPLICABLE INSTALLATION MOPS IDENTIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS

**SECTION 01 200 - COMPANY FURNISHED MATERIAL AND EQUIPMENT:**

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE. CONTRACTOR MAY BE REQUIRED TO PICK UP MATERIALS AT LOCATION PRESCRIBED BY SPRINT.

**SECTION 01 300 - CELL SITE CONSTRUCTION:**

**NOTICE TO PROCEED:**

NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

**SITE CLEANLINESS:**

CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

**SECTION 01 400 - SUBMITTALS & TESTS**

**ALTERNATES:**

AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED.

**TESTS AND INSPECTIONS:**

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS, JURISDICTION SPECIAL INSPECTIONS AND PROJECT DOCUMENTATION.
- B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - 1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 5 ANTENNA LINE ACCEPTANCE STANDARDS.
  - 2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA
  - 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
  - 4. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.
- C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
  - 1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS OR 3Z - ANTENNA ALIGNMENT TOOL (AAT)
  - 2. SWEEP AND FIBER TESTS
  - 3. SCALABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
  - 4. ALL AVAILABLE JURISDICTIONAL PERMIT AND OCCUPANCY INFORMATION
  - 5. PDF SCAN OF REDLINES PRODUCED IN FIELD
  - 6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
  - 7. LIEN WAIVERS
  - 8. FINAL PAYMENT APPLICATION
  - 9. REQUIRED FINAL CONSTRUCTION PHOTOS
  - 10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
  - 11. APPLICABLE POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
  - 12. CLOSEOUT PHOTOGRAPHS AND CLOSEOUT CHECKLIST: SPRINT WILL PROVIDE SEPARATE GUIDANCE

**SECTION 11 700 - ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION**

**SUMMARY:**

THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU'S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

**ANTENNAS AND RRU'S:**

THE NUMBER AND TYPE OF ANTENNAS AND RRU'S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

**HYBRID CABLE:**

HYBRID CABLE WILL BE DC/FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER'S REQUIREMENTS.

**JUMPERS AND CONNECTORS:**

FURNISH AND INSTALL 1/2" COAX JUMPER CABLES BETWEEN THE RRU'S AND ANTENNAS. JUMPERS SHALL BE TYPE LDF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU'S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE SO AS TO ALLOW FOR THE PROPER BEND RADIUS PER MANUFACTURER OR SPRINT SPECIFICATIONS.

**REMOTE ELECTRICAL TILT (RET) CABLES: A/E TO INSERT SPECIFICATION**

**MISCELLANEOUS:**

INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

**ANTENNA INSTALLATION:**

THE CONTRACTOR SHALL ASSEMBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

- A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.
- B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

**HYBRID CABLE INSTALLATION:**

- A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER'S SPECIFICATIONS FOR BENDING RADII.
- C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.
  - 1. FASTENING MAIN HYBRID CABLES: ALL CABLES SHALL BE INSTALLED INSIDE MONOPOLE WITH CABLE SUPPORT GRIPS AS REQUIRED BY THE MANUFACTURER. HOISTING GRIPS SHOULD BE INSTALLED TO MID POINT IF CABLE RUN EXCEEDS 200FT AS WELL AS AT TOP SIDE.
  - 2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND ANY INTERMEDIATE DISTRIBUTION BOXES.
    - a. FIBER: SUPPORT FIBER BUNDLES USING 1/2" VELCRO STRAPS OF THE REQUIRED LENGTH @ 18" OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
    - b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
  - 3. FASTENING OR SECURING JUMPERS SHOULD CONSIST OF STAINLESS STEEL CLIPS 18" FROM REAR OF CONNECTOR AND 24" THEREAFTER AND AT NO TIME SHALL THEY CONTACT TOWER OR STRUCTURAL STEEL.
  - 4. CABLE INSTALLATION:
    - a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER.
    - b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSEOVERS.
    - c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURERS RECOMMENDED MAXIMUM BEND RADIUS.

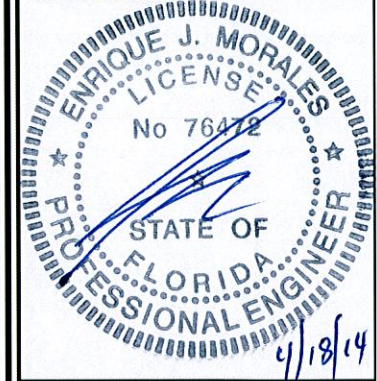
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**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:

**MI73XC110**

SITE ADDRESS:

**5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063**

SHEET DESCRIPTION:

**SPRINT SPECIFICATIONS**

SHEET NUMBER:

**SP-1**

**CONTINUE FROM SP-1**

5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.
6. HYBRID CABLE COLOR CODING: ALL COLOR CODING SHALL BE AS REQUIRED IN TS 0200 REV 5.
7. HYBRID CABLE LABELING: INDIVIDUAL HYBRID AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE - EN 2012-001, REV 1

**WEATHERPROOFING EXTERIOR CONNECTORS AND HYBRID CABLE GROUND KITS:**

- A. ALL FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.
- B. WEATHERPROOFING USING ONE OF THE FOLLOWING METHODS. ALL INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.
  1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.
  2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.
  3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.
  4. JMA-WPS SERIES ENCLOSURE
  5. BUTYL AND TAPE, 1 COMPLETE WRAP OF 3/4" PRE-TAPE BUTYL WRAPPED IN HALF INCH LAP LAYERS, ENDED WITH SHINGLED DOWNWARD 3 WRAPS TO 2" TAPE, 3 WRAPS OF 3/4" TAPE SHINGLED DOWNWARD, FREE OF WRINKLES, BUCKLES, AND FLAPPING.
  6. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

**SECTION 11 800 - INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT SUMMARY:**

- A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).
- B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS MATERIALS AND PROVIDE ALL LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.
- C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

**DC CIRCUIT BREAKER LABELING**

- A. NEW DC CIRCUIT IS REQUIRED IN MMBS CABINET SHALL BE CLEARLY IDENTIFIED AS TO RRU BEING SERVICED

**SECTION 26 100 - BASIC ELECTRICAL REQUIREMENTS**

**SUMMARY:**  
THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

**QUALITY ASSURANCE:**

- A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. **MATERIALS AND EQUIPMENT:** ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

**SUPPORTING DEVICES:**

- A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. **MATERIALS AND EQUIPMENT:** ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

**SUPPORTING DEVICES:**

A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

1. ALLIED TUBE AND CONDUIT
2. B-LINE SYSTEM
3. SUNISTRUT DIVERSIFIED PRODUCTS
4. THOMAS & BETTS

B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.
2. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.
3. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.
4. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.
5. CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY.
6. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.
7. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.
8. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES.
9. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

**SUPPORTING DEVICES:**

- A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.
- B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.
- C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:
- D. ENSURE THAT THE LOAD APPLIED BY ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.
- E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

**ELECTRICAL IDENTIFICATION:**

- A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.
- B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

**SECTION 26 200 - ELECTRICAL MATERIALS AND EQUIPMENT**

**CONDUIT:**

- A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED - SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.
- B. UNDERGROUND CONDUIT IN CONCRETE SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.
- C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.
- D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.
- E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6- FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.
- F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

**HUBS AND BOXES:**

- A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.
- B. CABLE TERMINATION FITTINGS FOR CONDUIT
  1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL BY ROX TEC.
  2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO - CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.
- C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.
- D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.
- E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "D", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

**SUPPLEMENTAL GROUNDING SYSTEM**

- A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM TO THE EXTENT INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS EXCEPTED AS OTHERWISE NOTED.
- B. SUPPLEMENTAL GROUNDING SYSTEM: ALL CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.
- C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

**EXISTING STRUCTURE:**

- A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

**CONDUIT AND CONDUCTOR INSTALLATION:**

- A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

PLANS PREPARED FOR:



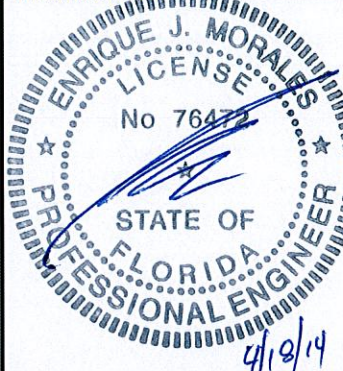
6580 Sprint Parkway  
Overland Park, Kansas 66251

PLANS PREPARED BY:



**POWDER RIVER**  
Development Services, LLC  
820 WEST INDIANTOWN ROAD  
SUITE 104  
JUPITER, FL 33458  
561.972.5511  
www.powderriverdev.com  
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2.5	FOR REVIEW	3/04/14	JJC	
	ISSUED FOR CONSTRUCTION 100%	4/18/14	JJC	0

SITE NAME:  
**COCONUT CREEK LAKESIDE PARK**


SITE CASCADE:  
**MI73XC110**

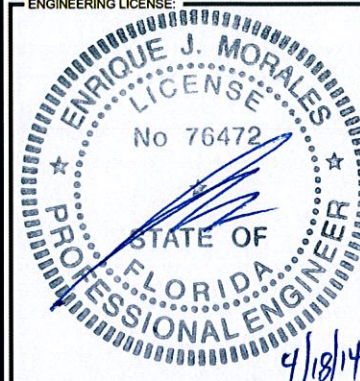
SITE ADDRESS:  
5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**SPRINT SPECIFICATIONS**

SHEET NUMBER:  
**SP-2**

PLANS PREPARED FOR:  
**Sprint**  
 6580 Sprint Parkway  
 Overland Park, Kansas 66251

PLANS PREPARED BY:  
  
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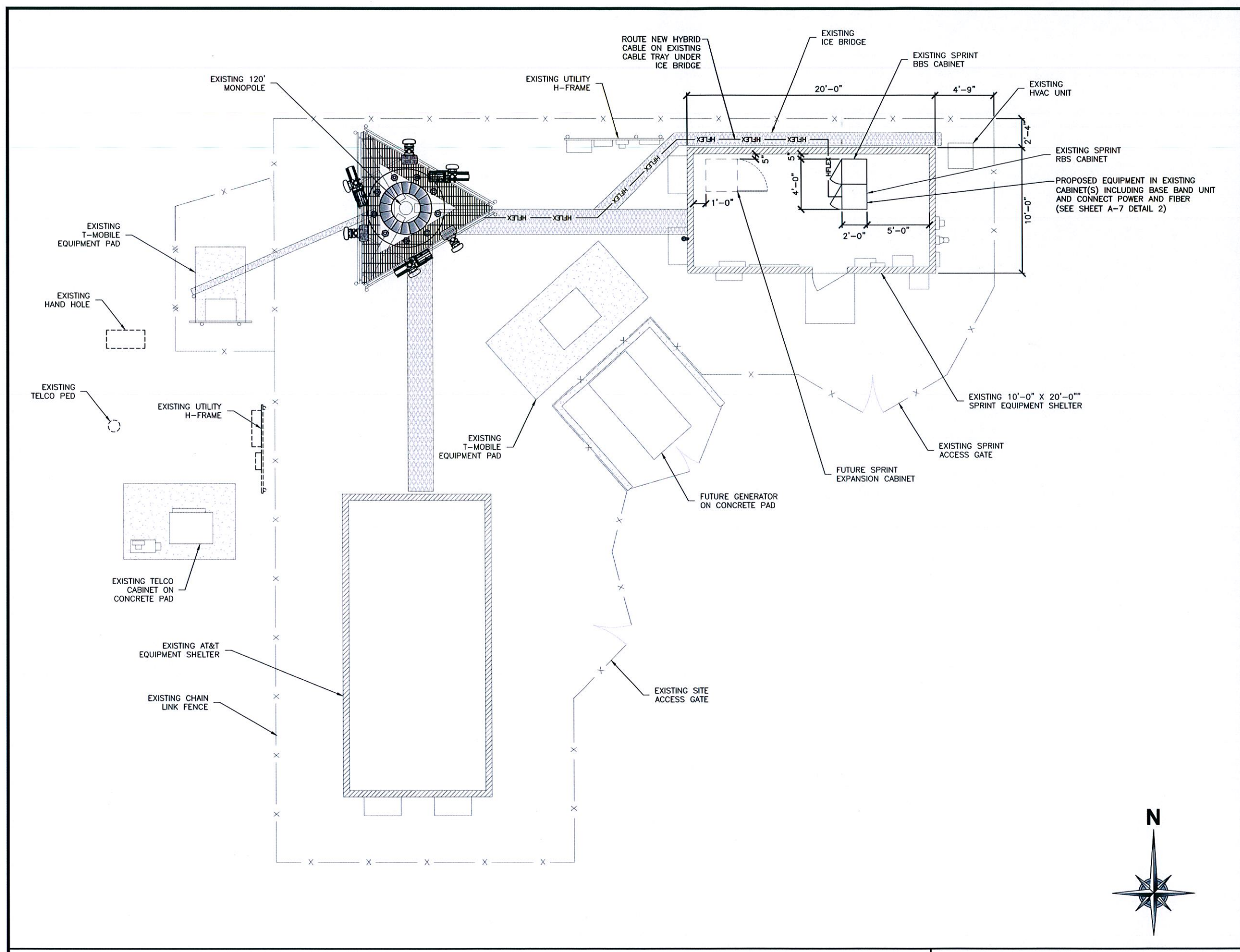
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SITE CASCADE:  
**MI73XC110**

SITE ADDRESS:  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**SITE PLAN**

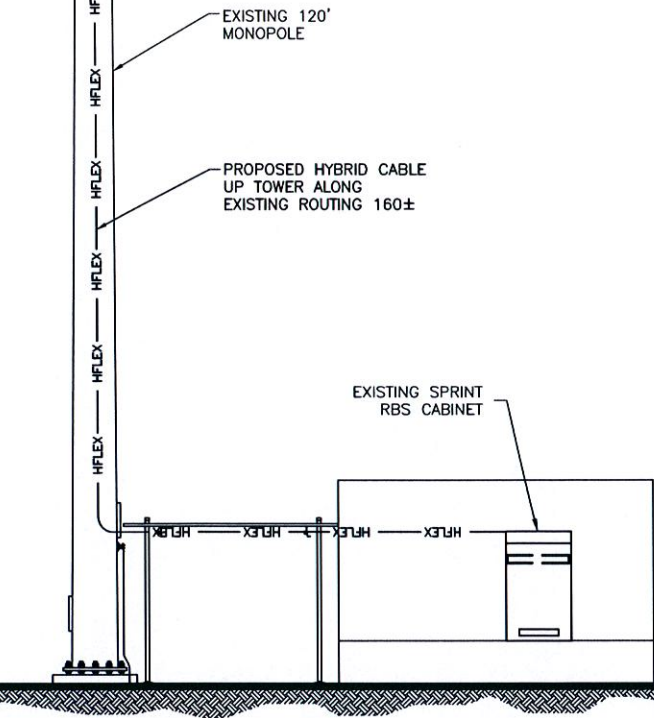
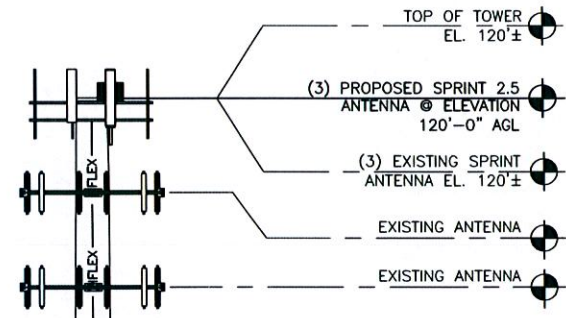
SHEET NUMBER:  
**A-1**



ENLARGED SITE PLAN

SCALE: 1" = 40'-0" (1" = 80'-0" ON 22"x34" SHEET)

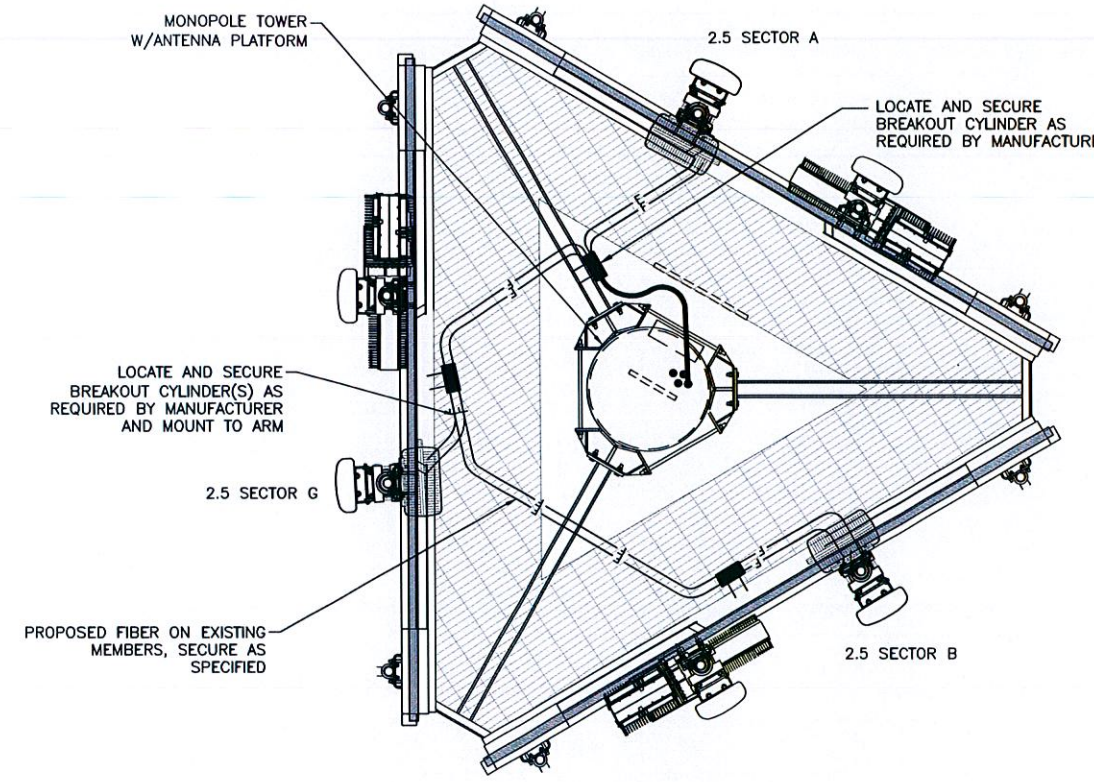
**NOTE:**  
 AN ANALYSIS OF THE STRUCTURE HAS BEEN PERFORMED BY POWDER RIVER DEVELOPMENT SERVICES DATED PENDING. THE ANTENNAS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND THE HEIGHT, LOCATION, AND MOUNTING SHOWN IN THE STRUCTURAL ANALYSIS SHOULD SUPERSEDE THESE DRAWINGS



SITE ELEVATION

NO SCALE

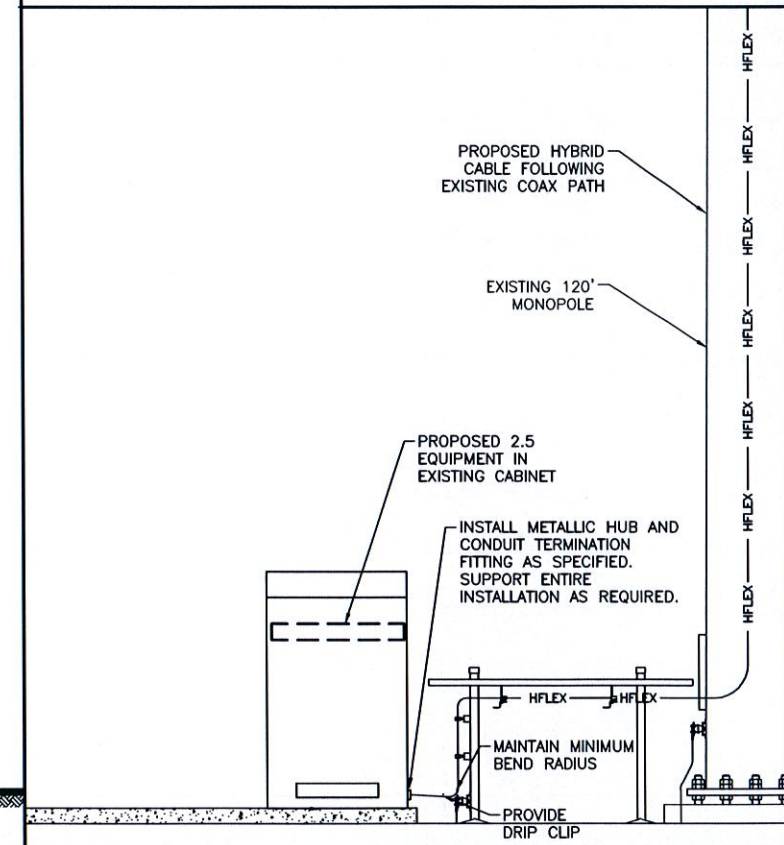
1



TYPICAL FIBER DETAIL

NO SCALE

4



CABLE ROUTE FROM CABINET (TYP)

NO SCALE

3

DETAIL NOT USED

NO SCALE

5

PLANS PREPARED FOR:

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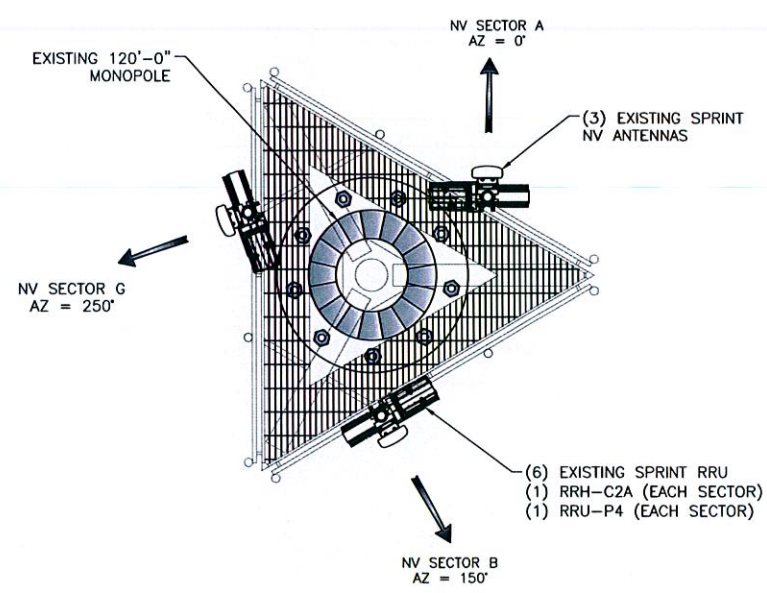
SITE NAME:  
**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:  
**MI73XC110**

SITE ADDRESS:  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**TOWER ELEVATION & CABLE PLAN**

SHEET NUMBER:  
**A-2**



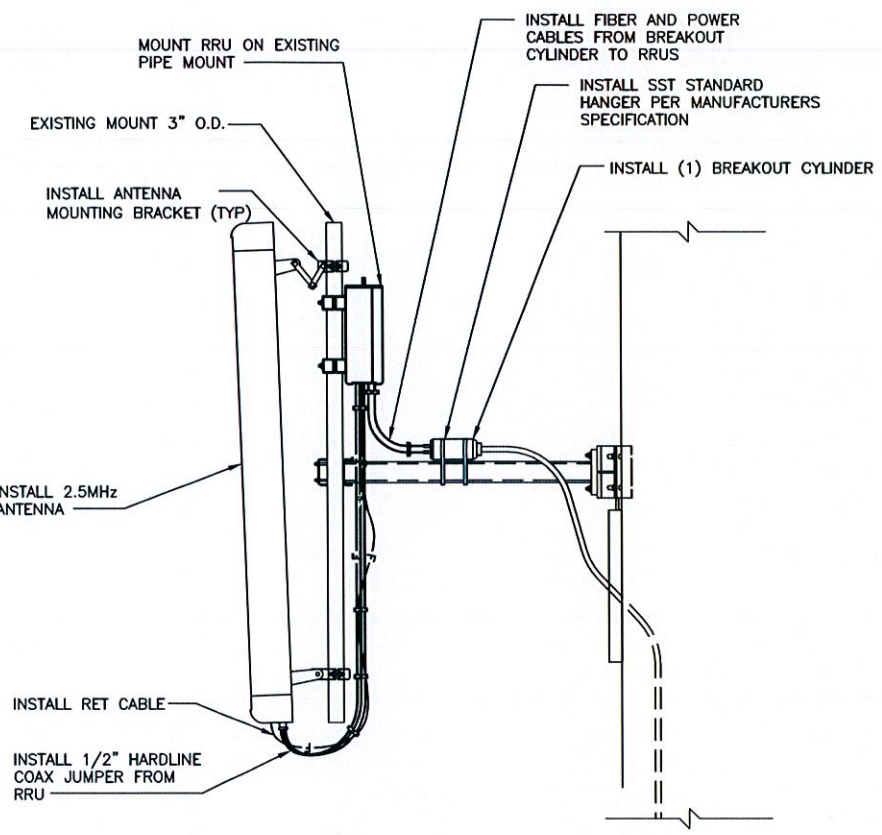
NOTE: EXISTING CDMA ANTENNA WILL BE REMOVED PRIOR TO INSTALL OF 2.5 ANTENNA

ANTENNA SCHEDULE		
SECTOR	ELECT TILT	MECH TILT
ALPHA	-2°	0°
BETA	-2°	0°
GAMMA	-2°	0°



EXISTING ANTENNA LAYOUT @ 120'

NO SCALE 1



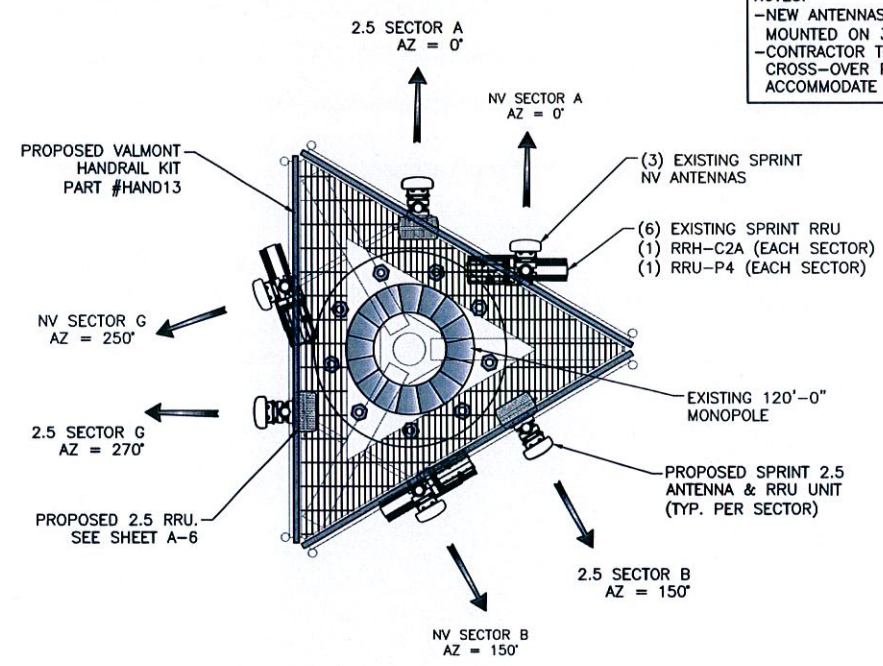
ANTENNA, RRU & BREAK-OUT MOUNTING DETAILS

NO SCALE 3

ANTENNA SCHEDULE									
SECTOR	ANTENNA FREQUENCY	ANTENNA MFR.	ANTENNA MODEL	ANTENNA QUANTITY	AZIMUTH	RAD CENTER	ANT. SIZE	ELEC. TILT	MECH TILT
ALPHA	2500 MHz	TONGYU	TYDA-25271BDER4-65P	1	0°	120'-0"	64"	-2°	0°
BETA	2500 MHz	TONGYU	TYDA-25271BDER4-65P	1	150°	120'-0"	64"	-2°	0°
GAMMA	2500 MHz	TONGYU	TYDA-25271BDER4-65P	1	270°	120'-0"	64"	-2°	0°

NOTE: CONTRACTOR TO MAINTAIN 4'-0" SEPARATION BETWEEN EXISTING AND PROPOSED ANTENNA

NOTES:  
 -NEW ANTENNAS W/ RRUS SHALL BE MOUNTED ON 3" SCHEDULE 40 PIPES.  
 -CONTRACTOR TO INSTALL NEW APPROVED CROSS-OVER PLATES AS REQUIRED TO ACCOMMODATE NEW PIPE MOUNTS.



FINAL ANTENNA LAYOUT @ 120'

NO SCALE 2

DETAIL NOT USED

NO SCALE 4

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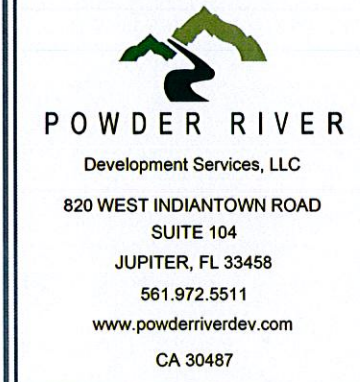
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**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:  
**MI73XC110**

SITE ADDRESS:  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**ANTENNA LAYOUT & MOUNTING DETAILS**

SHEET NUMBER:  
**A-3**



**ANTENNA MOUNTING NOTES**

1. APPROXIMATE LENGTH OF (1) HYBRID CABLE RUN = APPROX. LENGTH OF ICE BRIDGE + ANTENNA MOUNTING HEIGHT + 20 FEET
2. CONTRACTOR SHALL VERIFY THE DOWNTILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3. CONTRACTOR TO CONFIRM HYBRID CABLE COLOR CODING PRIOR TO CONSTRUCTION.

**CABLE MARKING NOTES**

1. ALL CABLES SHALL BE MARKED WITH 2" WIDE, UV STABILIZED, UL APPROVED TAPE.
2. THE FIRST RING SHALL BE CLOSEST TO THE END OF THE CABLE AND SPACED APPROXIMATELY 2" FROM THE END CONNECTOR, WEATHERPROOFING, OR BREAKOUT UNIT. THERE SHALL BE 1" SPACE BETWEEN EACH RING.
3. A 2" GAP SHALL SEPARATE THE CABLE COLOR CODE FROM THE FREQUENCY COLOR CODE. THE 2" COLOR RINGS FOR THE FREQUENCY CODE SHALL BE PLACED NEXT TO EACH OTHER WITH NO SPACES.
4. THE 2" COLORED TAPE(S) SHALL BE WRAPPED A MINIMUM OF 3 TIMES AROUND THE INDIVIDUAL CABLES, AND THE TAPE SHALL BE KEPT IN THE SAME LOCATION AS MUCH AS POSSIBLE.
5. SITES WITH MORE THAN FOUR (4) SECTORS WILL REQUIRE ADDITIONAL RINGS FOR EACH SECTOR, FOLLOWING THE PATTERN. HIGH CAPACITY SITES WILL USE THE SECOND CABLE IDENTIFIED BY BLUE BANDS OF TAPE
6. HYBRID FIBER CABLE SHALL BE SECTOR IDENTIFIED INSIDE THE CABINET ON FREQUENCY BUNDLES, ON THE SEALTITE, ON THE MAIN LINE UPON EXIT OF SEALTITE, AND BEFORE AND AFTER THE BREAKOUT UNIT (MEDUSA), AS WELL AS BEFORE AND AFTER ANY ENTRANCE OR EXIT.
7. HFC "MAIN TRUNK" WILL NOT BE MARKED WITH THE FREQUENCY CODES, AS IT CONTAINS ALL FREQUENCIES.
8. INDIVIDUAL POWER PAIRS AND FIBER BUNDLES SHALL BE LABELED WITH BOTH THE CABLE AND FREQUENCY.

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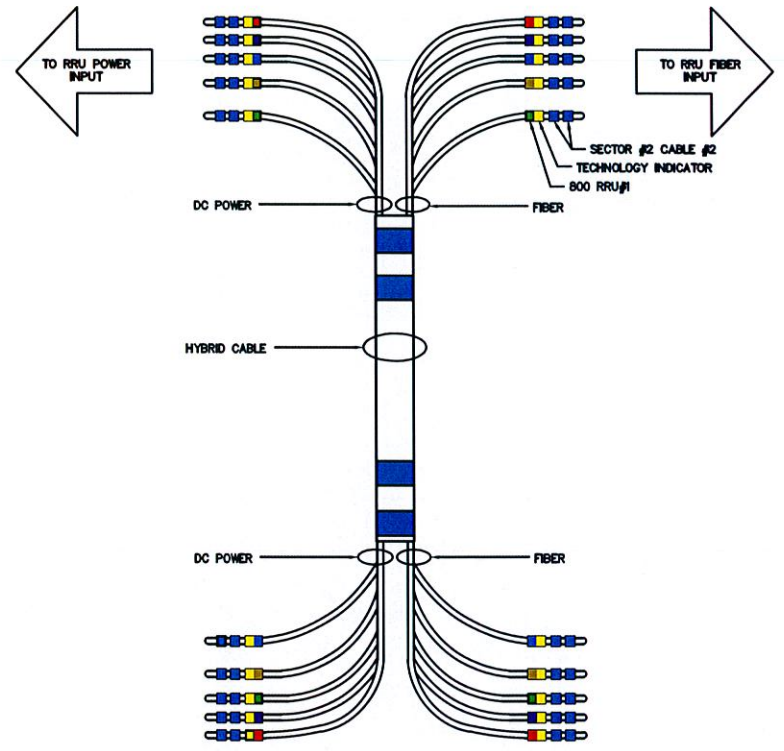
COCONUT CREEK LAKESIDE PARK

MI73XC110

5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063

RF DATA SHEET

A-4



GPS	FIRST RING		SECOND RING	
1	YELLOW	BLACK	NO TAPE	NO TAPE
	BLACK	YELLOW	NO TAPE	NO TAPE
2	YELLOW	BLACK	YELLOW	BLACK
	BLACK	YELLOW	BLACK	YELLOW

**3 HYBRID CABLE COLOR CODE**  
SCALE: N.T.S.

**2 GPS COLOR CODE**  
SCALE: N.T.S.

2500 MHz #1 CAL CABLE - SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FOURTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	WHITE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	WHITE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	WHITE

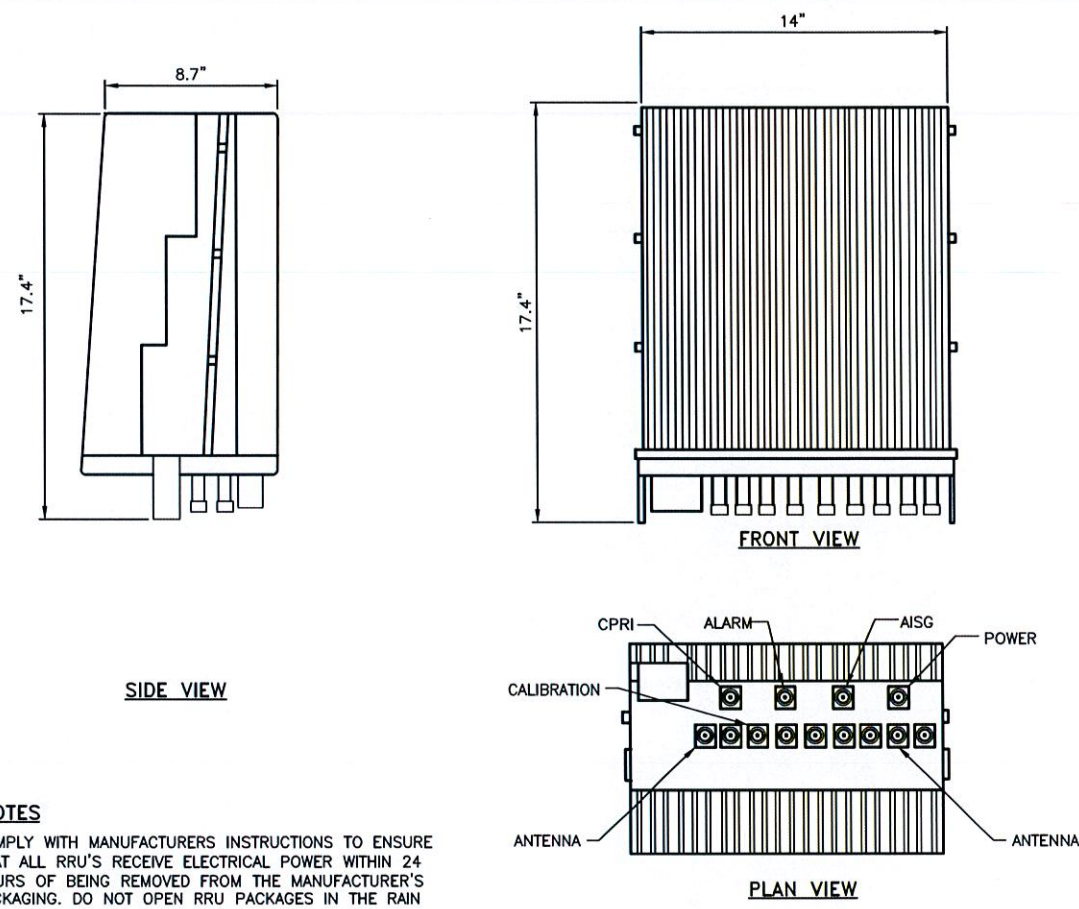
  

2500 MHz #2 CAL CABLE - SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FOURTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	PURPLE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	PURPLE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	PURPLE

**1 FREQUENCY COLOR CODE**  
SCALE: N.T.S.

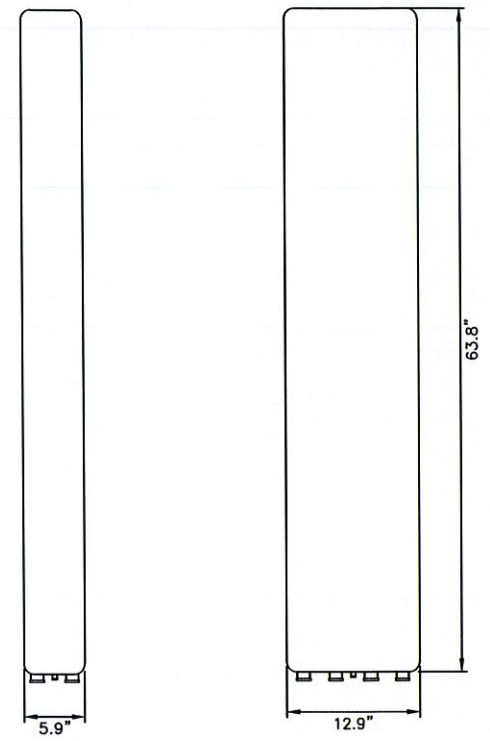
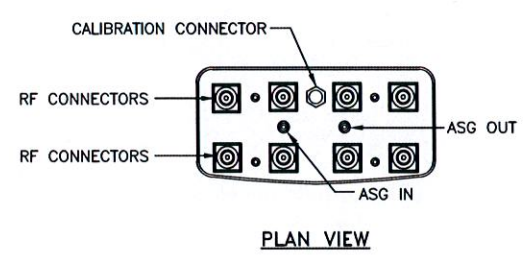






**ANTENNA MODEL AND SPECIFICATIONS**

MODEL # TYDA-252718DER4-65P  
 RADOME MATERIAL: UPVC  
 RADOME COLOR: LIGHT GRAY  
 DIMENSIONS, HxWxD.in(mim): 63.8"x12.9"x5.9" (1620x330x150mm)  
 WEIGHT: 54 lbs  
 CONNECTORS: (2) 4 FEMALE



**NOTES**  
 COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN

PLANS PREPARED FOR:

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 SUITE 104  
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ENGINEERING LICENSE

2.5 RRU'S

NO SCALE

1

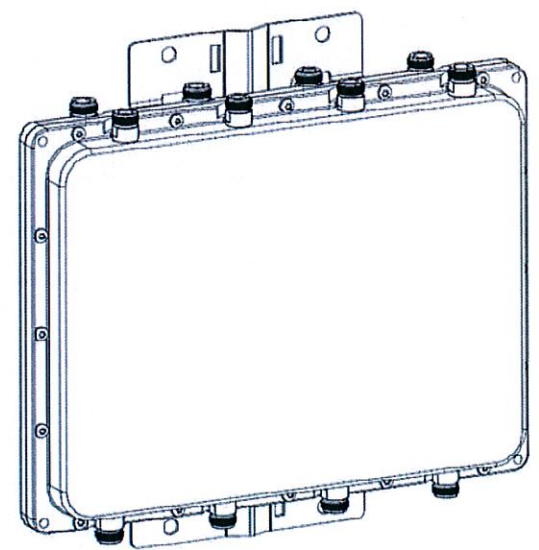
2.5 ANTENNA

NO SCALE

3

RADAR FILTER IF REQUIRED	
DIMENSIONS W/O MOUNTING BRACKET	WEIGHT W/O MOUNTING BRACKET
11.8"x9.5"x3.0"	15.5 lbs

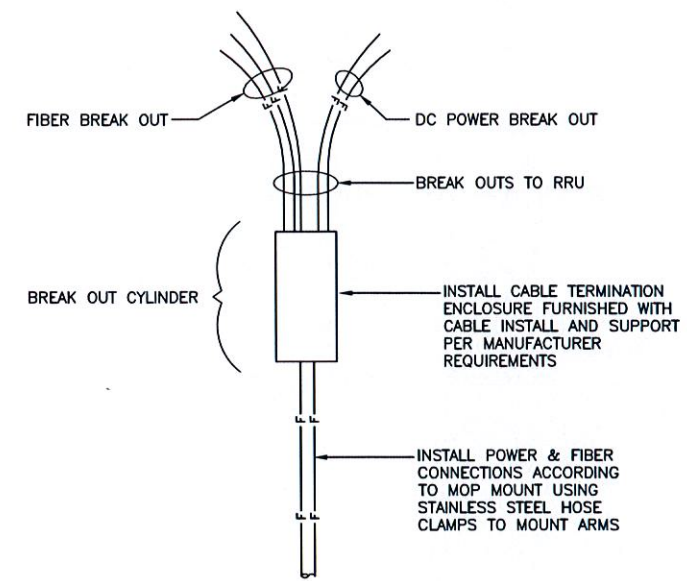
NOTE:  
 USE GALVANIZED U BOLTS TO MOUNT FILTER



FILTER DETAIL

NO SCALE

2



HYBRID BREAK OUT DETAIL

NO SCALE

4

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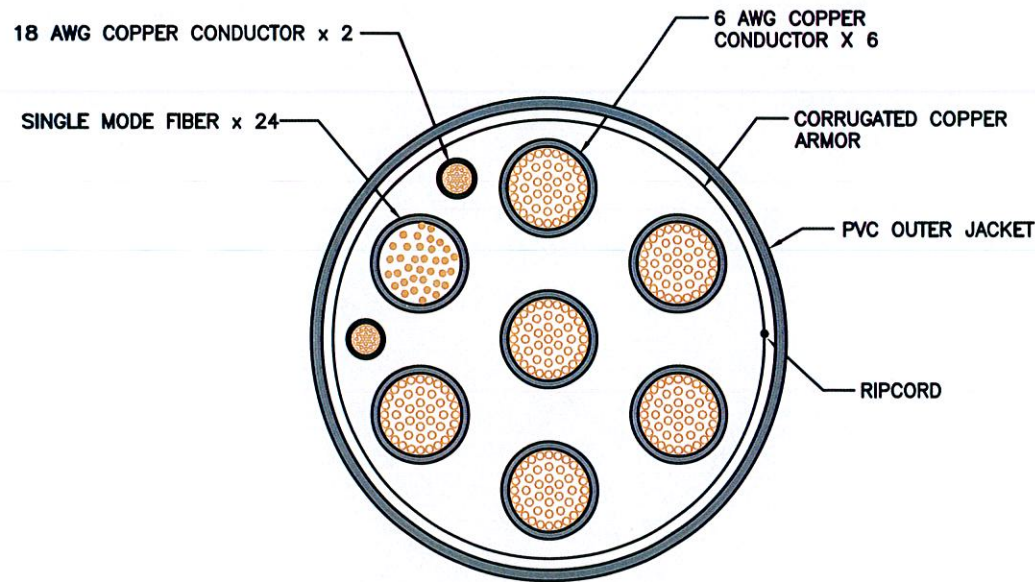
SITE NAME:  
**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:  
**MI73XC110**

SITE ADDRESS:  
 5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**EQUIPMENT DETAILS**

SHEET NUMBER:  
**A-6**



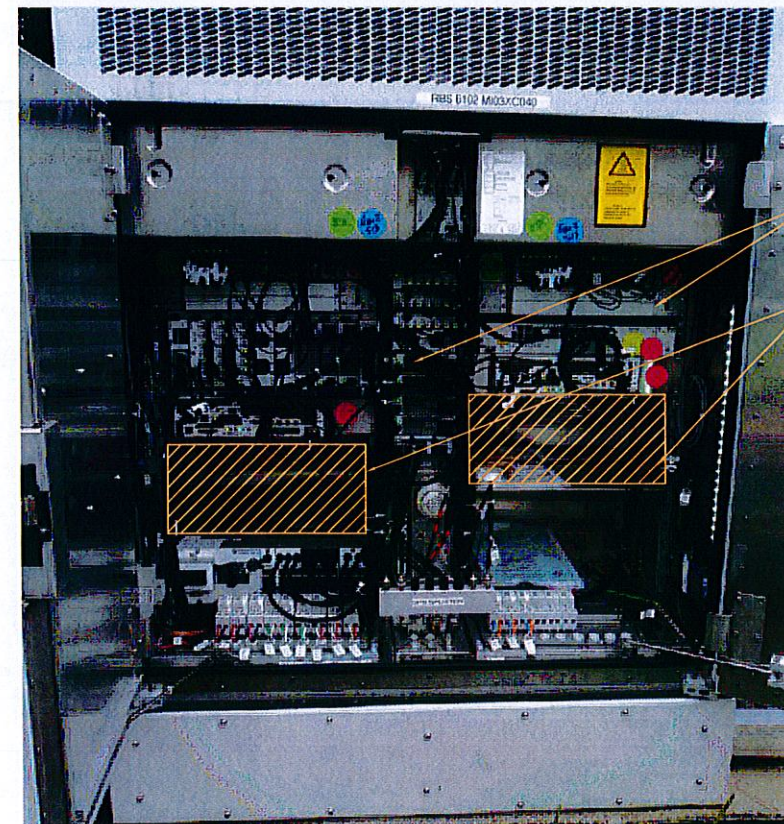
NOTE: CABLE CROSS-SECTION NOT DRAWN TO SCALE

CABLE TYPE	Number, size (awg)	6/C #6 + 2/C #18
	Voltage	600
	Outer Jacket	PVC
	Shielding	Corrugated Copper
	Max shield resistance (ohm/ft @ 20 c)	0.0035
	Drain	n/a
	Ripcord	Kevlar
	Dc conductor material	Copper
	Dc conductor size (awg)	6
	Max Dc resistance (ohm/1000ft)	0.411 @ 20 deg C
	Color Code	Black/Red
	Alarm Conductor Material	Copper
	Alarm conductor size (awg)	18
	Max Dc resistance (ohm/1000ft)	6.7
	Color Code	TBD
	Fiber Cables	SM
	Outer Diameter (in) - Nominal	1.24
	Weight (lb/ft)	1.05
	Minimum Bend Radius (in)	15
	Bend Moment (lb/ft)	TBD
	Tensile Strength (lb)	325
	Crush Resistance, FOTP-41 (N/mm)	22
	Strength Member	No
	Operating Temperature Range (low)	-40 deg C
	Operating Temperature Range (high)	+80 deg C
Fiber Type		Low Water Peak Single Mode Loose Tube
Fiber Standard Compliance		ITU-T Rec. G.652.D, G657.A2
		IEC 60793-2-50 Type B.1.3 & Type B.6 A&B
Fiber Coating Diameter (um)		.242 +/- 0.007mm 0.9 +/- 0.005mm
Fiber Count		24
Number of fiber subunits		1
Fiber count each units		24
Fiber count jackets		FR Jacket
Max attenuation, 1310 nm (db/km)		Less than equa 0.5
Max attenuation, 1550 nm (db/km)		Less than equa 0.5

HYBRID CABLE X-SECTION AND DATA

NO SCALE

1



EXISTING CABINET EQUIPMENT (TYP)

SPACE SUITABLE FOR NSN 2.5 EQUIPMENT (TYP)

EXISTING SPRINT RBS 6102 WITH 2.5 EQUIPMENT (TYP.)

NO SCALE

2

DETAIL NOT USED

NO SCALE

3

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SITE CASCADE:

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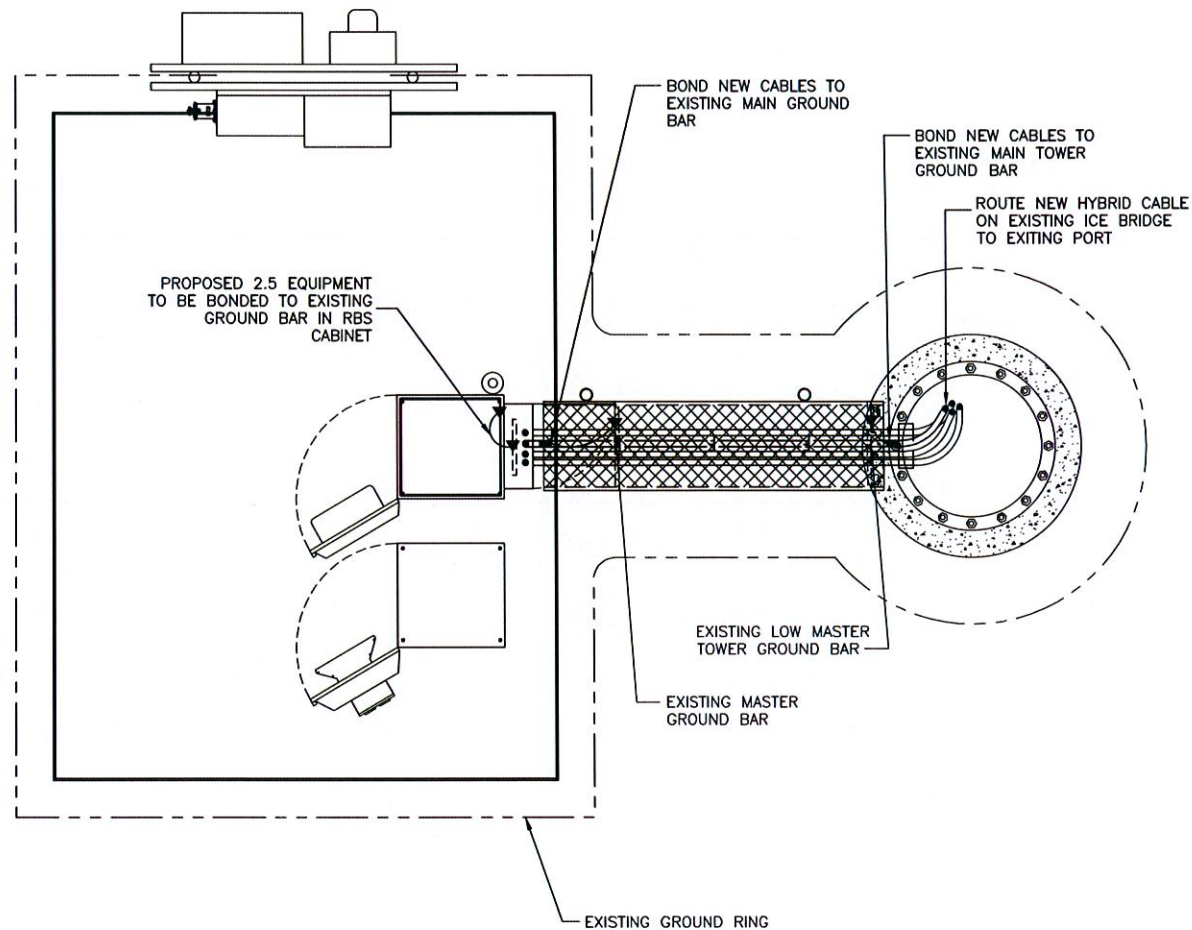
**EQUIPMENT DETAILS**

SHEET NUMBER:

**A-7**

**LEGEND:**

- EXISTING GROUND RING
- CADWELD CONNECTION (EXOTHERMIC WELD)
- ▲ MECHANICAL CONNECTION
- ⊗ GROUND ROD

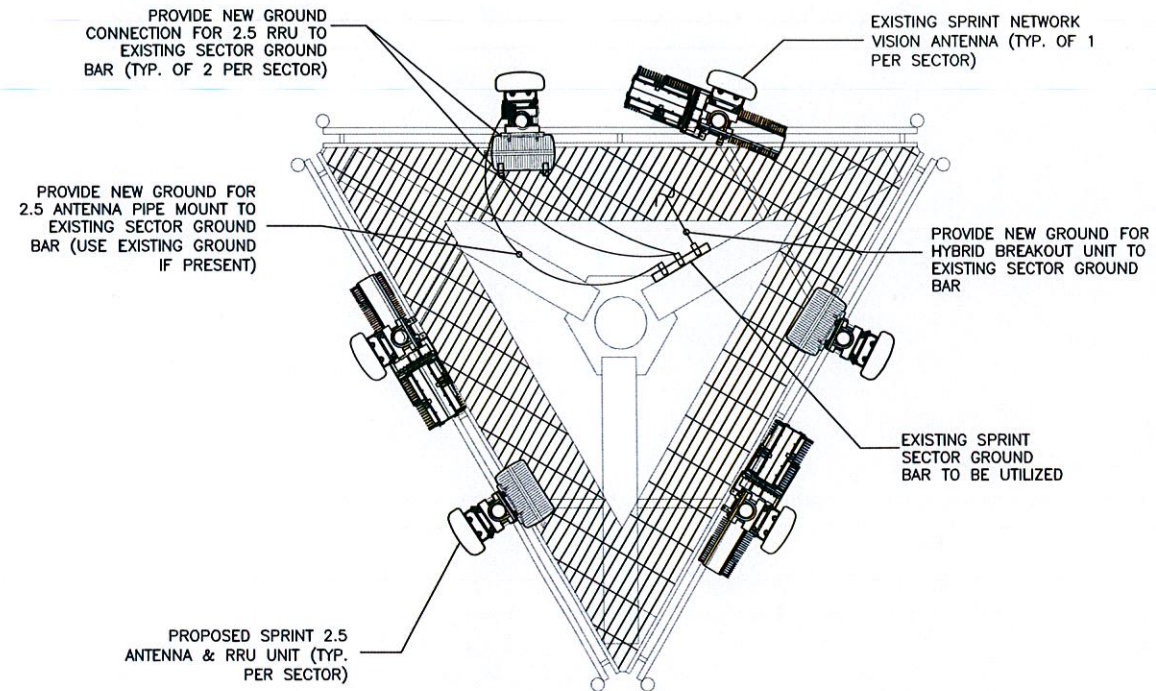


EQUIPMENT GROUNDING PLAN (TYP)

NO SCALE

1

- NOTE:**
1. CONTRACTOR TO USE MECHANICAL CONNECTION FOR GROUNDING OF RRU AND CADWELD CONNECTION FOR GROUNDING OF ANTENNA PIPE MOUNT.
  2. PROPOSED HYBRID CABLE TO BE BONDED TO EXISTING SECTOR GROUND BAR.



ANTENNA GROUNDING PLAN (TYP)

NO SCALE

2

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REVISIONS:	DESCRIPTION	DATE	BY	REV
2.5 FOR REVIEW		3/04/14	JJC	
ISSUED FOR CONSTRUCTION 100%		4/18/14	JJC	0

SITE NAME:  
**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:  
**MI73XC110**

SITE ADDRESS:  
5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063

SHEET DESCRIPTION:  
**GROUNDING & ELECTRICAL PLAN**

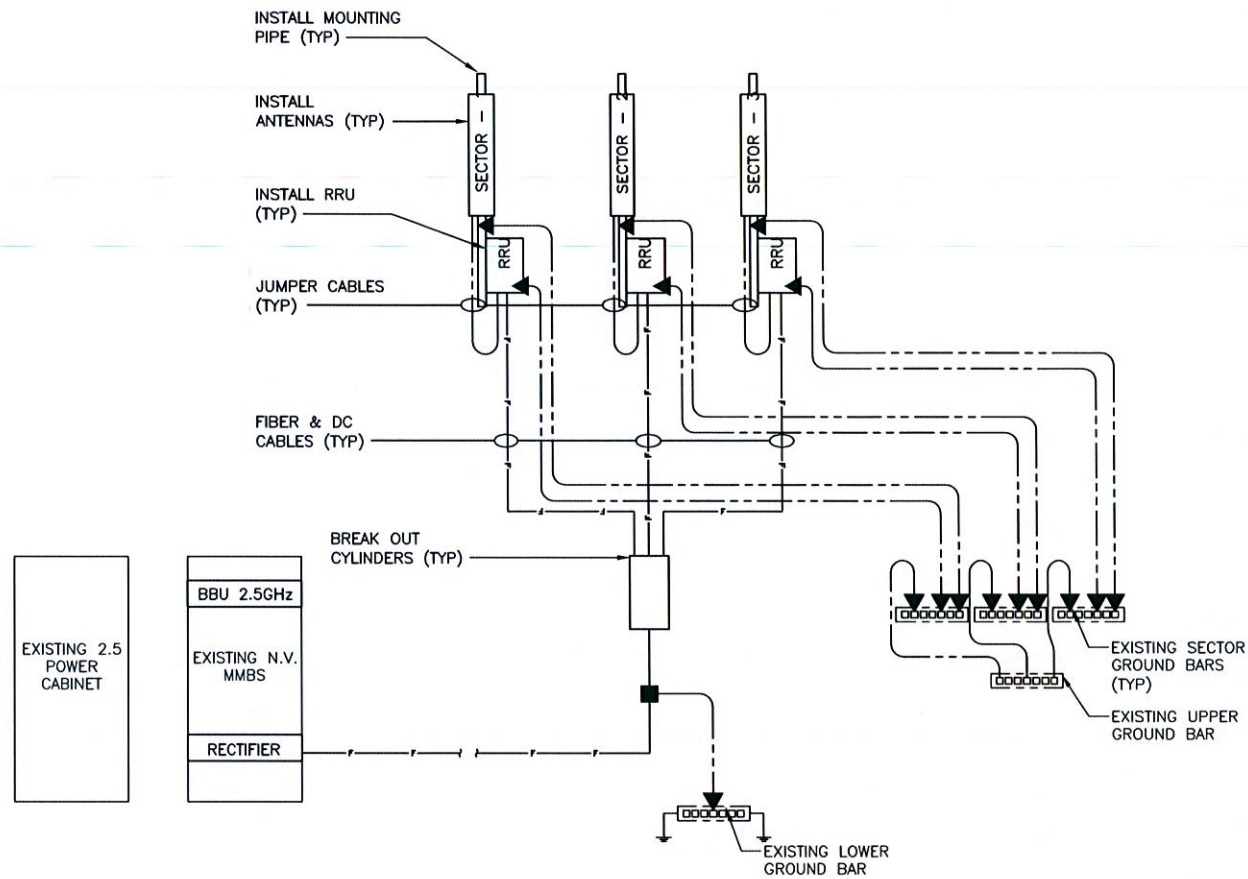
SHEET NUMBER:  
**E-1**

DETAIL NOT USED

NO SCALE

3

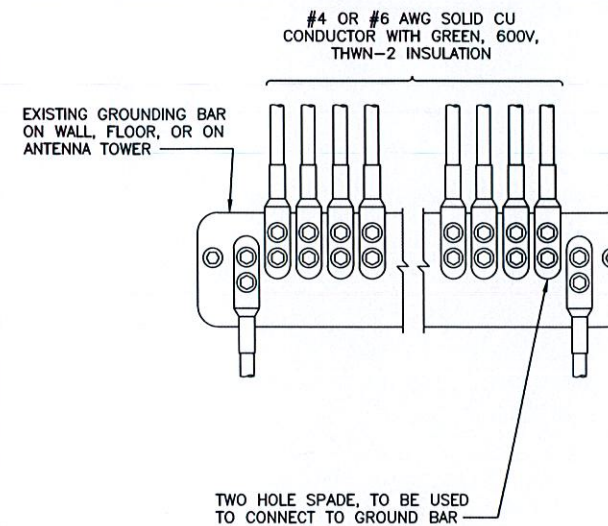
**SYMBOL LEGEND**  
 ■ EXOTHERMIC CONNECTION  
 ▲ MECHANICAL CONNECTION



GROUNDING RISER DIAGRAM

NO SCALE

1



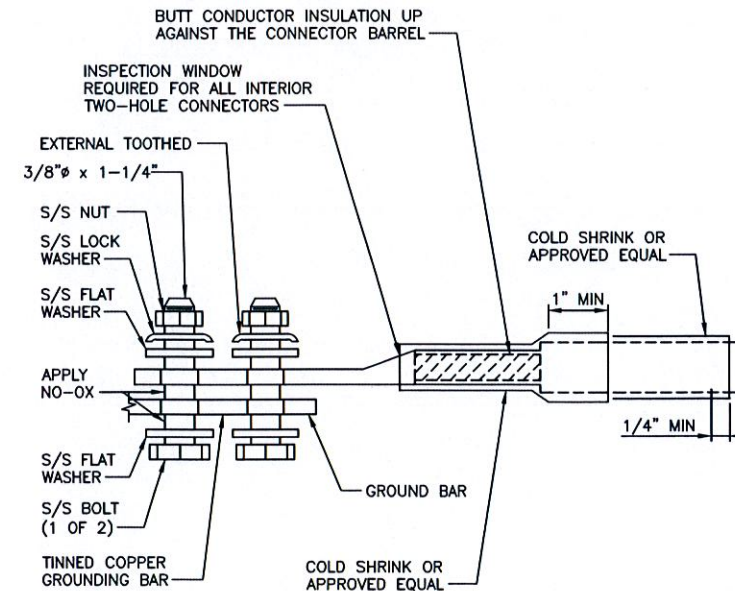
**NOTES**

1. APPLY NO-OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

INSTALLATION OF GROUNDING CONDUCTOR TO GROUNDING BAR

NO SCALE

4



TWO HOLE LUG

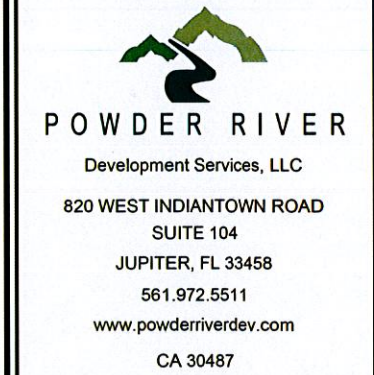
NO SCALE

5

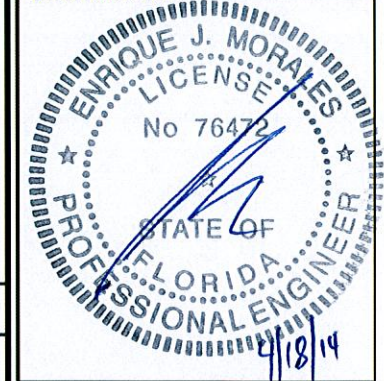
PLANS PREPARED FOR:



PLANS PREPARED BY:



ENGINEERING LICENSE:



DRAWING NOTICE:

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REVISIONS:	DESCRIPTION	DATE	BY	REV
2.5	FOR REVIEW	3/04/14	JJC	
	ISSUED FOR CONSTRUCTION 100%	4/18/14	JJC	0

SITE NAME:

COCONUT CREEK LAKESIDE PARK

SITE CASCADE:

MI73XC110

SITE ADDRESS:

5555 REGENCY LAKES BLVD.  
 COCONUT CREEK, FL 33063

SHEET DESCRIPTION:

GROUNDING DETAILS

SHEET NUMBER:

E-2

DETAIL NOT USED

NO SCALE

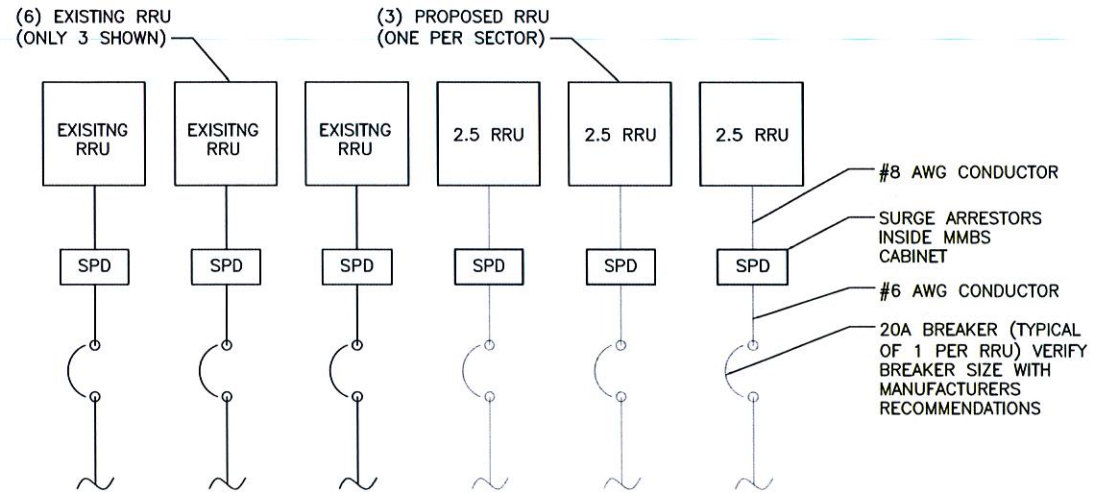
2

DETAIL NOT USED

NO SCALE

3

NOTE:  
INSTALL ACCORDING TO INSTALLATION MOP.

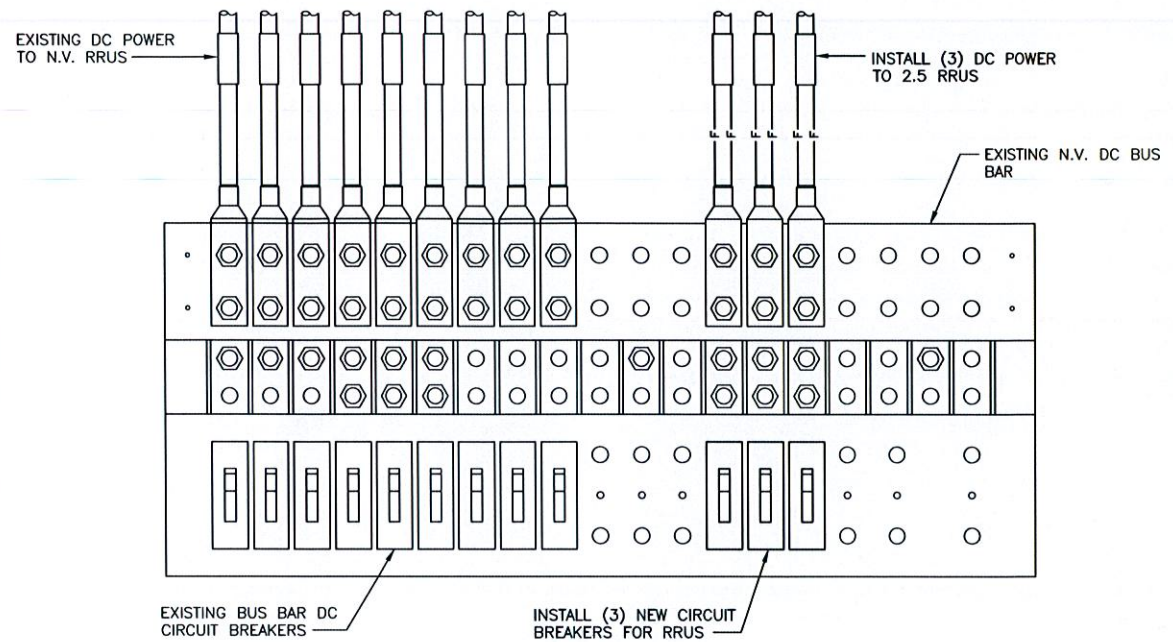


NOTE:  
INFORMATION INVOLVING DC WIRING HAS BEEN PROVIDED BY CLIENT AND/OR MANUFACTURER AND IS SHOWN HERE FOR INFORMATION PURPOSES ONLY.

DC ONE LINE DIAGRAM

NO SCALE

1



NOTE:  
INFORMATION INVOLVING DC WIRING HAS BEEN PROVIDED BY CLIENT AND/OR MANUFACTURER AND IS SHOWN HERE FOR INFORMATION PURPOSES ONLY.

DC POWER DISTRIBUTION

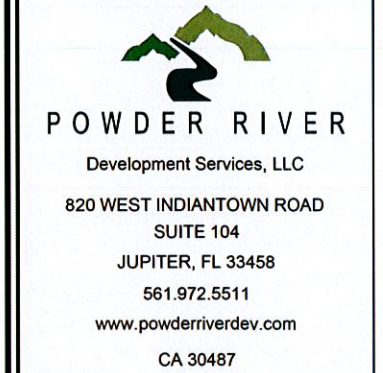
NO SCALE

3

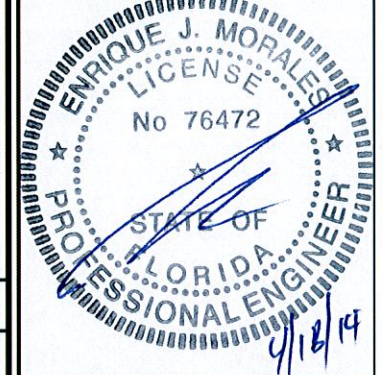
PLANS PREPARED FOR:



PLANS PREPARED BY:



ENGINEERING LICENSE:



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REVISIONS:

DESCRIPTION	DATE	BY	REV
2.5 FOR REVIEW	3/04/14	JJC	
ISSUED FOR CONSTRUCTION 100%	4/18/14	JJC	0

SITE NAME:

COCONUT CREEK LAKESIDE PARK

SITE CASCADE:

MI73XC110

SITE ADDRESS:

5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063

SHEET DESCRIPTION:

DC POWER & DISTRIBUTION

SHEET NUMBER:

E-3

DETAIL NOT USED

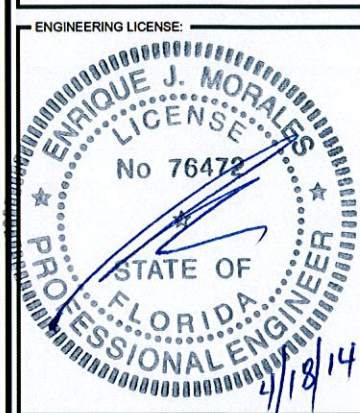
NO SCALE

2

DETAIL NOT USED

NO SCALE

4



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REVISIONS:

NO.	DESCRIPTION	DATE	BY	REV
2.5	FOR REVIEW	3/04/14	JJC	
	ISSUED FOR CONSTRUCTION 100%	4/18/14	JJC	0

SITE NAME:

**COCONUT CREEK LAKESIDE PARK**

SITE CASCADE:

**MI73XC110**

SITE ADDRESS:

5555 REGENCY LAKES BLVD.  
COCONUT CREEK, FL 33063

SHEET DESCRIPTION:

**A/C POWER DISTRIBUTION**

SHEET NUMBER:

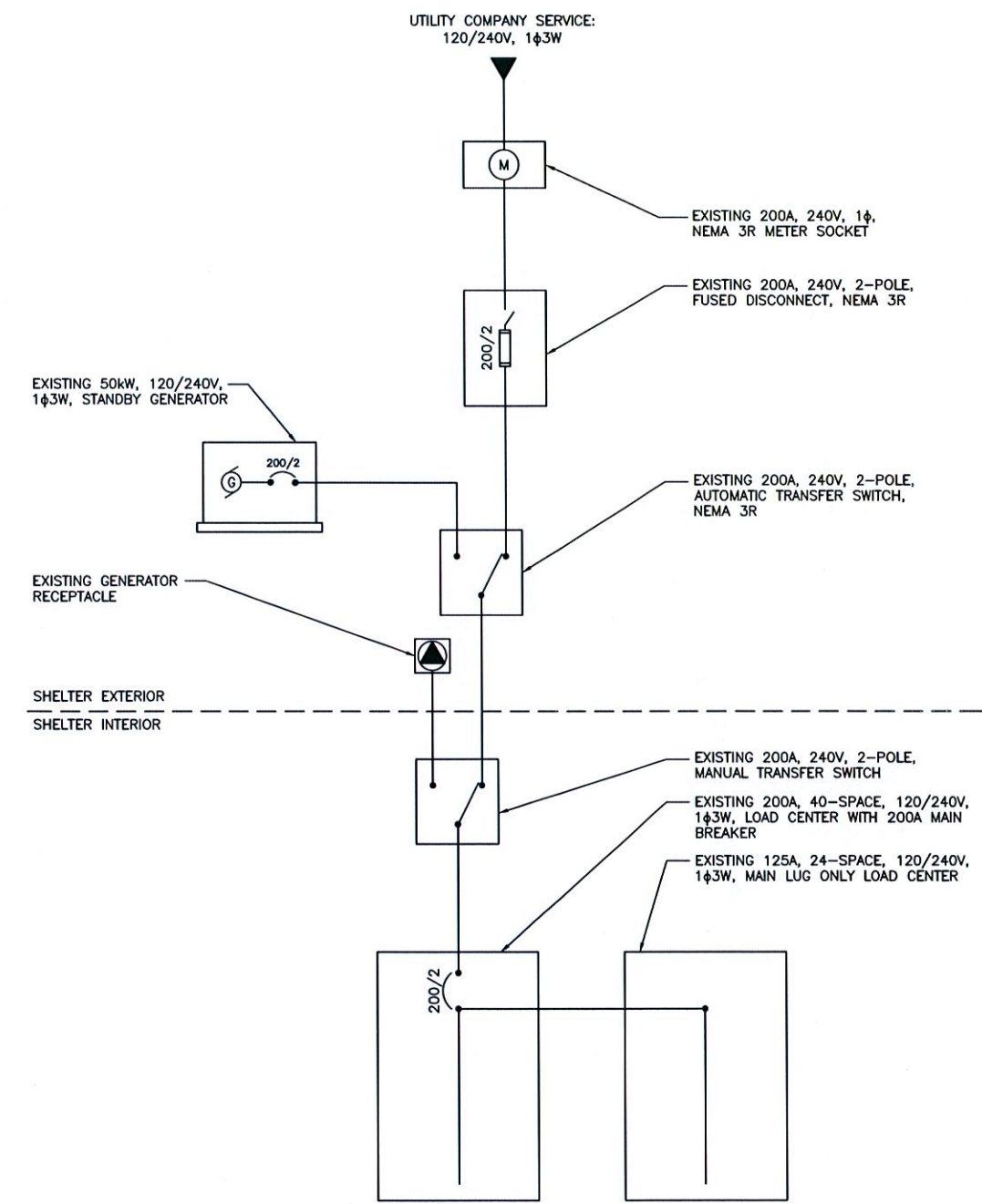
**E-4**

**NOTES**

CG SHALL REFERENCE ALL SPECS FOR "CONNECTING THE POWER SUPPLY" OF THE NEW INSTALLATION DOCUMENTS, FOR ALL CONNECTION SPECIFICATIONS.

**NOTES:**

- CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER. ALL WIRE LARGER THAN #10 SHALL BE THWN-2, THW-2, RHW-2, OR XHHW-2 WIRE UNLESS NOTED OTHERWISE.



**ELECTRICAL ONE-LINE DIAGRAM**

NO SCALE

1

**SPRINT MAIN PANEL SCHEDULE**

MAIN: 200 AMP MAIN CIRCUIT BREAKER		AIC RATING: --								
VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE		PANEL AMPACITY: 200 AMPS								
DESCRIPTION	C/B	C or NC	CIR NO.	LOAD (VA)		CIR NO.	C/B	DESCRIPTION		
				A-PHASE	B-PHASE					
HVAC #1	30	C	1	1800		2	15	LIGHT		
		NC		150					4	1
		C	3		1800					
HVAC #2	30	NC	5	1800		6	20	RECEPTACLES #1		
		NC		180					8	1
		NC	7		1800					
SURGE ARRESTOR	2	NC				10	20	RECEPTACLES #2		
		NC		180					12	1
		NC	11							
POWER FAIL ALARM	2	NC	13	20		14	15	TIMER/FAN		
		NC		100					16	1
		NC	15		20					
RECTIFIER #1	30	NC				18	30	RECTIFIER #2		
		C		1440					20	2
		C	19		1440					
RECTIFIER #3	30	C		1440		22	60	RECTIFIER #4		
		C		1440					24	2
		C	23		1440					
SPARE	30			25	--	26	30	SPARE		
				--	--				28	2
				--	--					
SPARE	30			29	--	30	30	SPARE		
				--	--				32	2
				31	--					
FUTURE USE	30			33	--	34	30	CDMA BTS 1		
		C		1440					36	2
		NC	35		900					
KHOLER GEN BATTERY CHARGER	20	C			1440	36	36	CDMA BTS 2		
		C			1440				40	2
		NC	39		1800					
HVAC #3	30	NC	37	1800		38	30	CDMA BTS 2		
		C		1440					40	2
		C			1440					
BASE LOAD (VA) =				14670	15165					
25% OF CONTINUOUS LOAD (VA) =				2610	2610					
TOTAL LOAD (VA) =				17280	17775					
TOTAL LOAD (A) =				144	149					

\*"C" DESIGNATION IDENTIFIES CONTINUOUS LOADS AND MOTOR LOADS AS REQUIRED BY SECTIONS 230.42 AND 430.24 OF THE NEC

**A/C LOAD CALCULATION**

NO SCALE

2