

PROJECT INFORMATION

SCOPE OF WORK: AT&T PROPOSES TO UPATE THEIR EXISTING TELECOM FACILITY WHICH CURRENTLY CONSIST OF GROUND MOUNTED EQUIPMENT CABINETS AND PANEL ANTENNAS ATTACHED TO EXISTING WATER TOWER. THE PROPOSED SCOPE OF WORK INCLUDES REPLACING (3) OF THE (12) EXISTING 4' ANTENNAS WITH (3) NEW 8' ANTENNAS AND ADDING (3) REMOTE RADIO HEADS (RRH) AND 2' MICROWAVE DISH.

SITE ADDRESS: 7401 E. REDFIELD RD
SCOTTSDALE, AZ 85260

LATITUDE: 33° 36' 38" N
LONGITUDE: 111° 55' 06" W
JURISDICTION: CITY OF SCOTTSDALE
EXISTING USE: WIRELESS SITE
PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY
APN: 175-04-002-A
ZONING: I-1

DRAWING INDEX

REV

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REFERENCE STANDARD LTE DETAILS, LATEST VERSION, FOR INSTALLATION DETAILS

NOTES

1. THE FOLLOWING NOTES, SYMBOLS AND DETAILS FROM BECTEL DOCUMENT NUMBER 24782-000-A3-EF-00001 APPLIES TO THE IMPLEMENTATION OF THIS SITE DESIGN PACKAGE. REFERENCE STANDARD NOTES SHEET.

GENERAL NOTES	DETAIL 623 - REV 1
CONSTRUCTION NOTES	DETAIL 101 - REV 2
GROUNDING NOTES	DETAIL 621 - REV 3
ELECTRICAL INSTALLATION NOTES	DETAIL 622 - REV 2
RF NOTES	DETAIL 116 - REV 6
CONCRETE AND REINFORCING STEEL NOTES:	DETAIL 102 - REV 4
SITE WORK GENERAL NOTES	DETAIL 619 - REV 2

A/E DOCUMENT REVIEW STATUS

1	ACCEPTED - WITH MINOR OR NO COMMENTS, CONSTRUCTION MAY PROCEED
2	NOT ACCEPTED - PLEASE RESOLVE COMMENTS AND RESUBMIT

ACCEPTANCE DOES NOT CONSTITUTE APPROVAL OF DESIGN DETAILS, CALCULATIONS, ANALYSIS, TEST METHODS OR MATERIALS DEVELOPED OR SELECTED BY SUBCONTRACTOR AND DOES NOT RELIEVE SUBCONTRACTOR FROM FULL COMPLIANCE WITH CONTRACTUAL OBLIGATION.

REVIEWED:	ENG.	CONST.		
BY:			DATE:	

REDLINE DRAWING REVIEW

NAME (PRINT)	SIGNATURE	DATE
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GENERAL CONTRACTOR - CONFIRM ACCURACY OF THESE REDLINE DRAWINGS

NAME (PRINT)	SIGNATURE	DATE
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FIELD COORDINATOR - VERIFY INSTALLATION PER REDLINE DRAWINGS

NAME (PRINT)	SIGNATURE	DATE
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ENGINEERING - Market Engineer Shall Review Redline Drawings To Ensure Changes Do Not Alter The Original Design Intent And/Or Are Code Compliant



primus design group
3200 N. HAYDEN RD STE 320
SCOTTSDALE, AZ 85252

PHONE: 602-453-0050 FAX: 602.453.0002

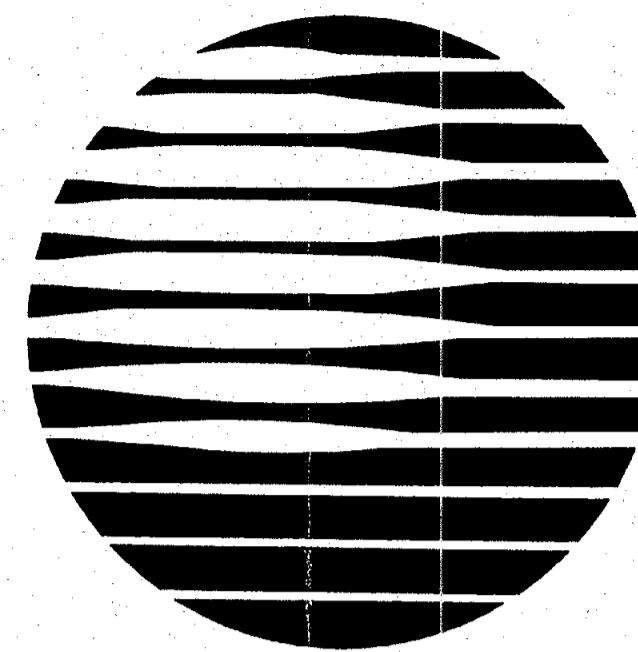
T-BIRD ACADEMY
P019

7401 E. REDFIELD RD
SCOTTSDALE, AZ 85260



AT&T MOBILITY
20830 N. TATUM BLVD. SUITE 400
PHOENIX, AZ 85050
PHONE: (480) 414-1829

NOTE:
PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO NOTIFY INSPECTION SERVICES BY CALLING (480) 312-5750

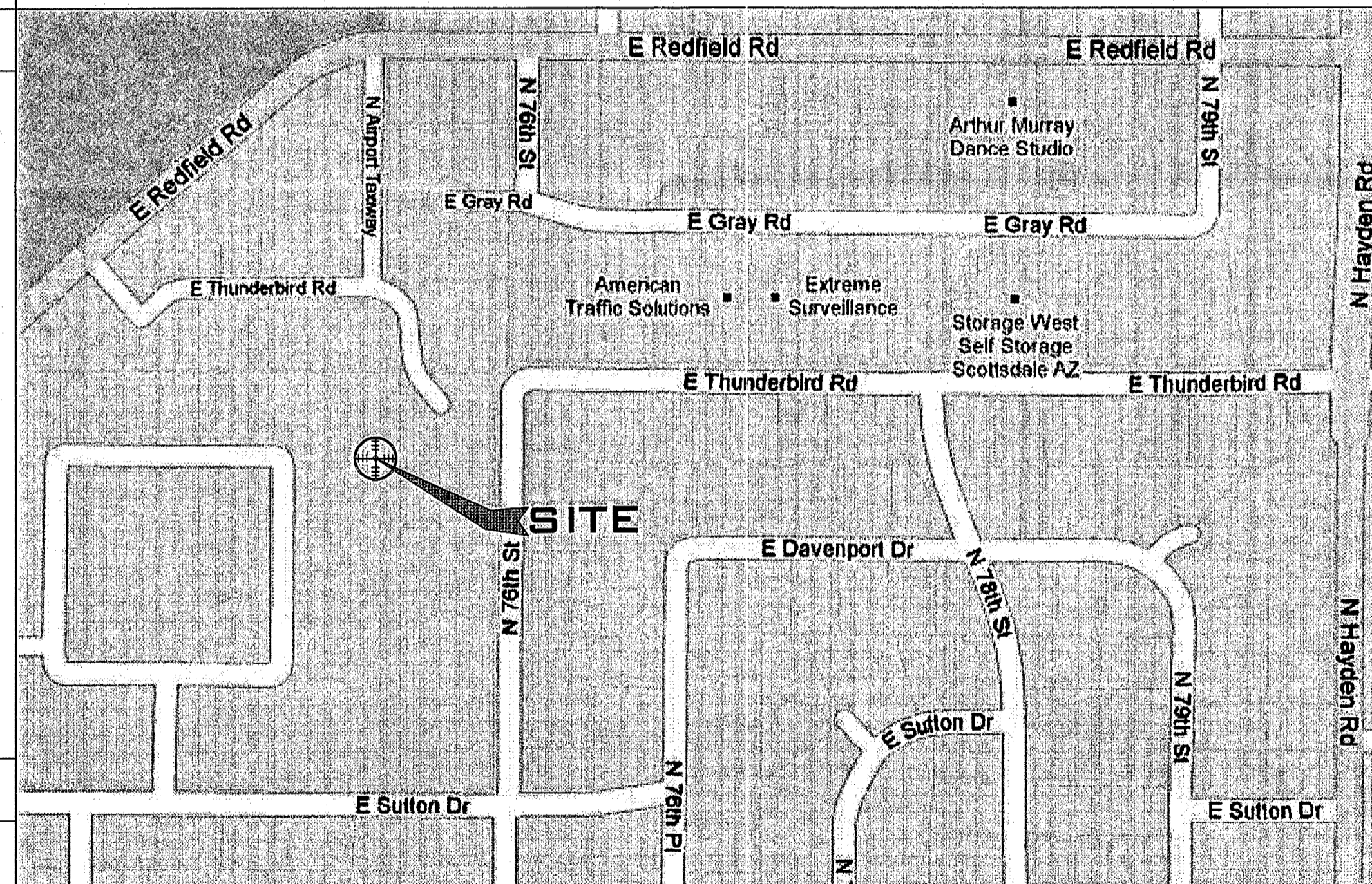


at&t

SITE NUMBER: P019
CANDIDATE NAME: T-BIRD ACADEMY

VICINITY MAP

- DIRECTIONS:**
1. HEAD SOUTH ON N TATUM BLVD TOWARD E ROSE GARDEN LN
 2. TURN LEFT
 3. TURN RIGHT TO MERGE ONTO AZ-101 LOOP E
 4. TAKE EXIT 34 FOR SCOTTSDALE RD
 5. TURN RIGHT AT N SCOTTSDALE RD
 6. TURN LEFT AT E THUNDERBIRD RD
 7. CONTINUE ONTO E REDFIELD RD. DESTINATION WILL BE ON THE RIGHT



SITE QUALIFICATION PARTICIPANTS

	NAME	COMPANY	NUMBER
A/E	JERRY CASTILLO	PRIMUS DESIGN GROUP	323-541-6689
SAC	CHARLES WILLIAMS	at&t WIRELESS	480-515-7106
RF	STEVEN J ISBELL	at&t WIRELESS	480-515-7075
LANDLORD	TBD	ARIZONA CONFERENCE CORP. OF S.D.A.	TBD

APPLICABLE BUILDING CODES AND STANDARDS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE:
INTERNATIONAL BUILDING CODE 2006

ELECTRICAL CODE:
[NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70 - 2005, NATIONAL ELECTRICAL CODE,
LIGHTNING PROTECTION CODE:
[NFPA 780 - 2000, LIGHTNING PROTECTION CODE]

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS.
AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:
TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM
IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT

IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS

TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

DETAIL 103

APPROVED
FINAL PLANS
DATE: 03/31/2013
APPROVED BY: [Signature]

APPROVALS

AT&T (RF): _____ DATE: _____

AT&T (CONST.): _____ DATE: _____

AT&T (S.A.): _____ DATE: _____

LANDLORD: _____ DATE: _____

LANDLORD: _____ DATE: _____

TITLE SHEET

PROJECT NUMBER	DRAWING NUMBER	REV
	P019 - 01	1

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/20/11	ISSUED FOR CITY COMMENTS	JC	AM	JS
0	03/28/11	ISSUED FOR FINAL CDS	JC	AM	JS
A	01/03/11	ISSUED FOR REVIEW	RA	JC	JC



03-31-2013

SCALE: AS SHOWN DESIGNED: _____ DRAWN: _____

CITY COPY

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CASE # 17-DR-2011
PLAN CHECK #1882-11

NOTICE

Beyond This Point you are entering a controlled area where RF emissions may exceed the FCC Occupational Exposure Limits. Follow all posted signs and site guidelines for working in an RF environment.

Ref: FCC 47CFR 1.1307(b) AT&T Wireless

INFORMATION

AT&T Wireless operates telecommunications antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna(s).

Contact AT&T Mobility 800-638-2822 prior to performing any maintenance or repairs near AT&T Wireless antennas.

This Site # P019
Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

Esta propiedad se ubican antenas de telecomunicaciones operadas por AT&T. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

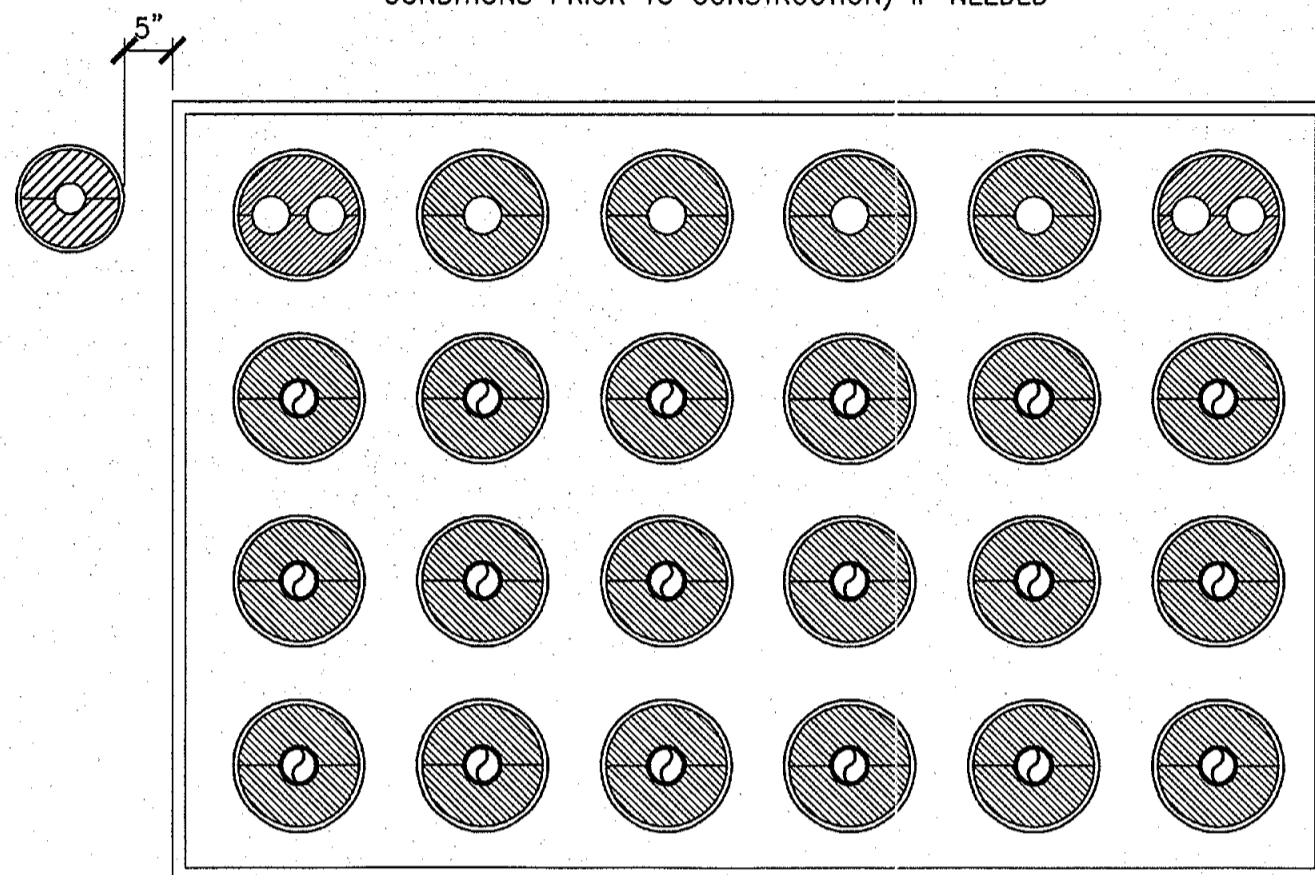
Comuniquese con el propietario o los propietarios de las antenas de trabajar o caminar de menos de 3 pies de la antena.

Comuniquese con AT&T Mobility 800-638-2822 antes de realizar cualquier mantenimiento o reparaciones de las antenas de AT&T.

Esta es la estacion base numero P019
Favor comuniquese co la oficina de la administracion del edificio si esta puerta o compuerta se encuentra sin candado.

DETAIL LEGEND

- NEW COAX CABLES TYP.
- EXISTING COAX CABLES TYP. TO BE USED AS NEEDED
- ⊙ EXISTING ENTRY BOOT (REPLACE (E) BOOT WITH DOUBLE ENTRY AS NEEDED)
- ⊙ CONTRACTOR TO CORE DRILL SHELTER WALL NEXT TO (E) ENTRY PORT & PROVIDE (1) ENTRY BOOT FOR NEW COAX CABLE (CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION) IF NEEDED



NOTE:
NO ADDITIONAL CONDUITS NEEDED FOR COAX CABLES.

ENTRY PORT DETAIL "A"

DETAIL A
07

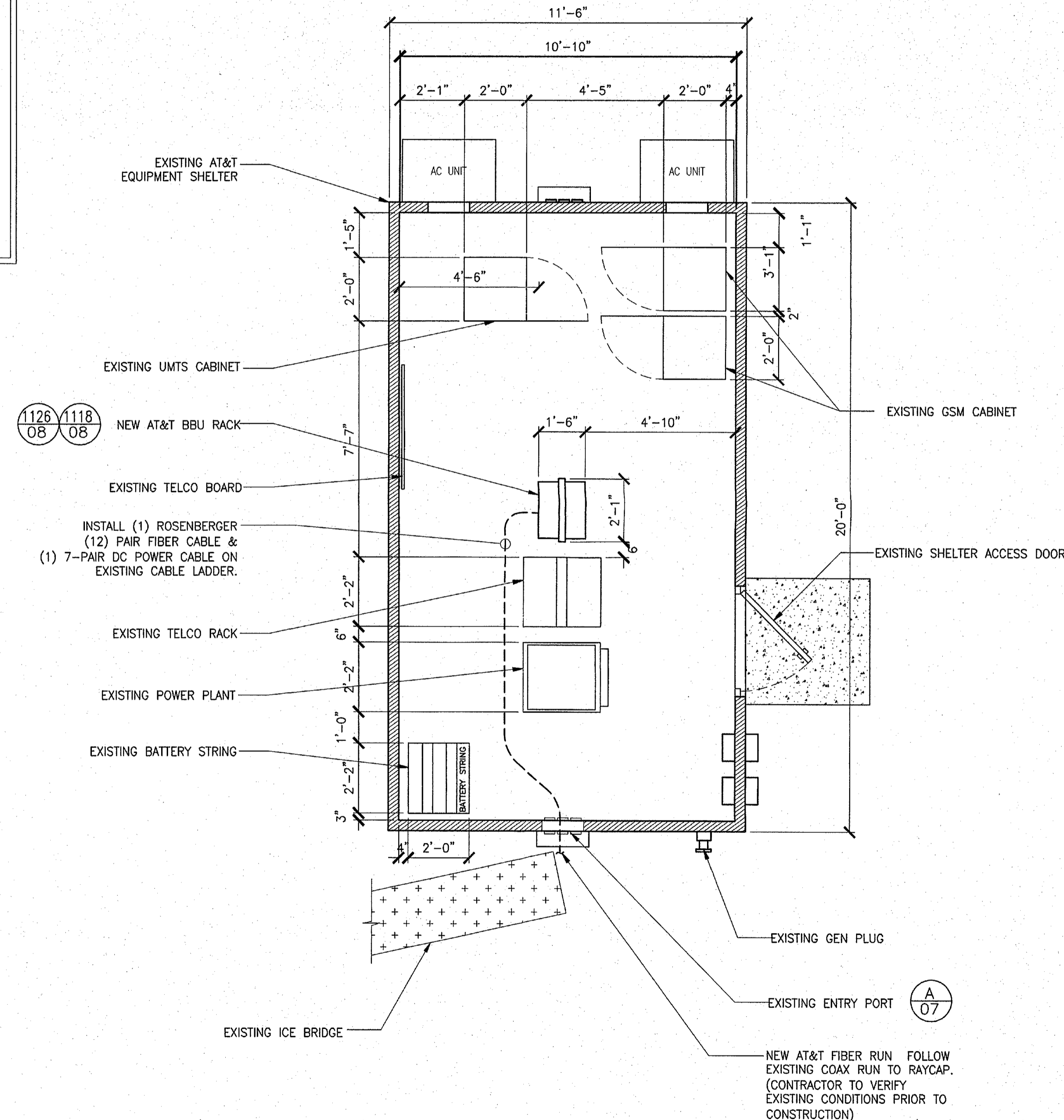
SCOPE OF WORK

1. DC POWER PLANT REVIEW (REFER TO SITE SPECIFIC DC POWER PLANT CALC SHEET).
* NO ADDITIONAL RECTIFIERS REQUIRED FOR LTE.
2. BATTERY CHECK (REFER TO SITE SPECIFIC BATTERY CALC SHEET).
* NO ADDITIONAL BATTERIES REQUIRED.
3. A/C PANEL REVIEW (REFER TO SITE SPECIFIC SHEET IF REQ'D).
* EXISTING AC PANEL IT'S OKAY IN IT'S CURRENT STATE.

NOTE:
AT&T TO PROVIDE ON ENTRY GATE.

NOTE:
AT&T TO PROVIDE ON ENTRY GATE.

**EMERGENCY MARKER
PLAQUE** B
07



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**T-BIRD ACADEMY
P019**

7401 E. REDFIELD RD
SCOTTSDALE, AZ 85260



AT&T MOBILITY
20830 N. TATUM BLVD. SUITE 400
PHOENIX, AZ 85050
PHONE: (480) 414-1829

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1	05/20/11	ISSUED FOR CITY COMMENTS	JC	AM	JS
0	03/28/11	ISSUED FOR FINAL CDS	JC	AM	JS
A	01/03/11	ISSUED FOR REVIEW	RA	JC	JC

SCALE AS SHOWN DESIGNED: DRAWN: 03-31-2013

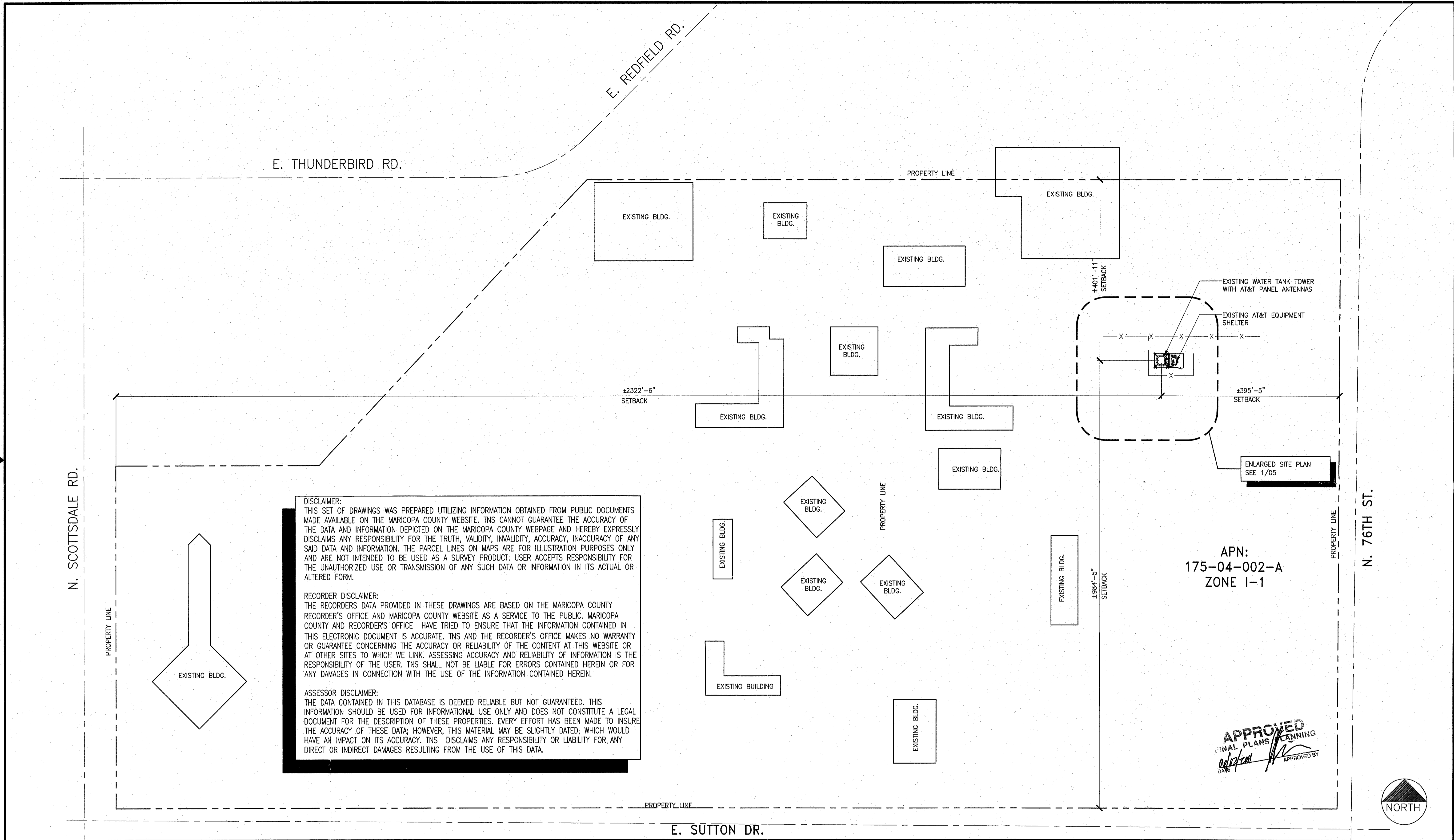


EQUIPMENT SHELTER LAYOUT & SCOPE OF WORK

PROJECT NUMBER	DRAWING NUMBER	REV
P019	- 07	1

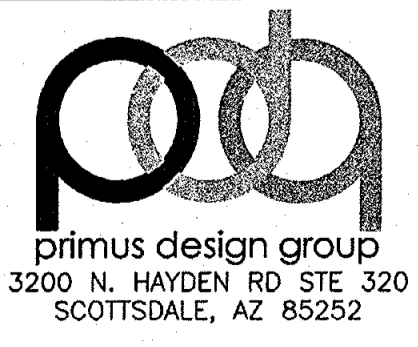
CASE # 17-DR-2011
PLAN CHECK #1882-11

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SITE PLAN

SCALE: 1"=100'-0" 1



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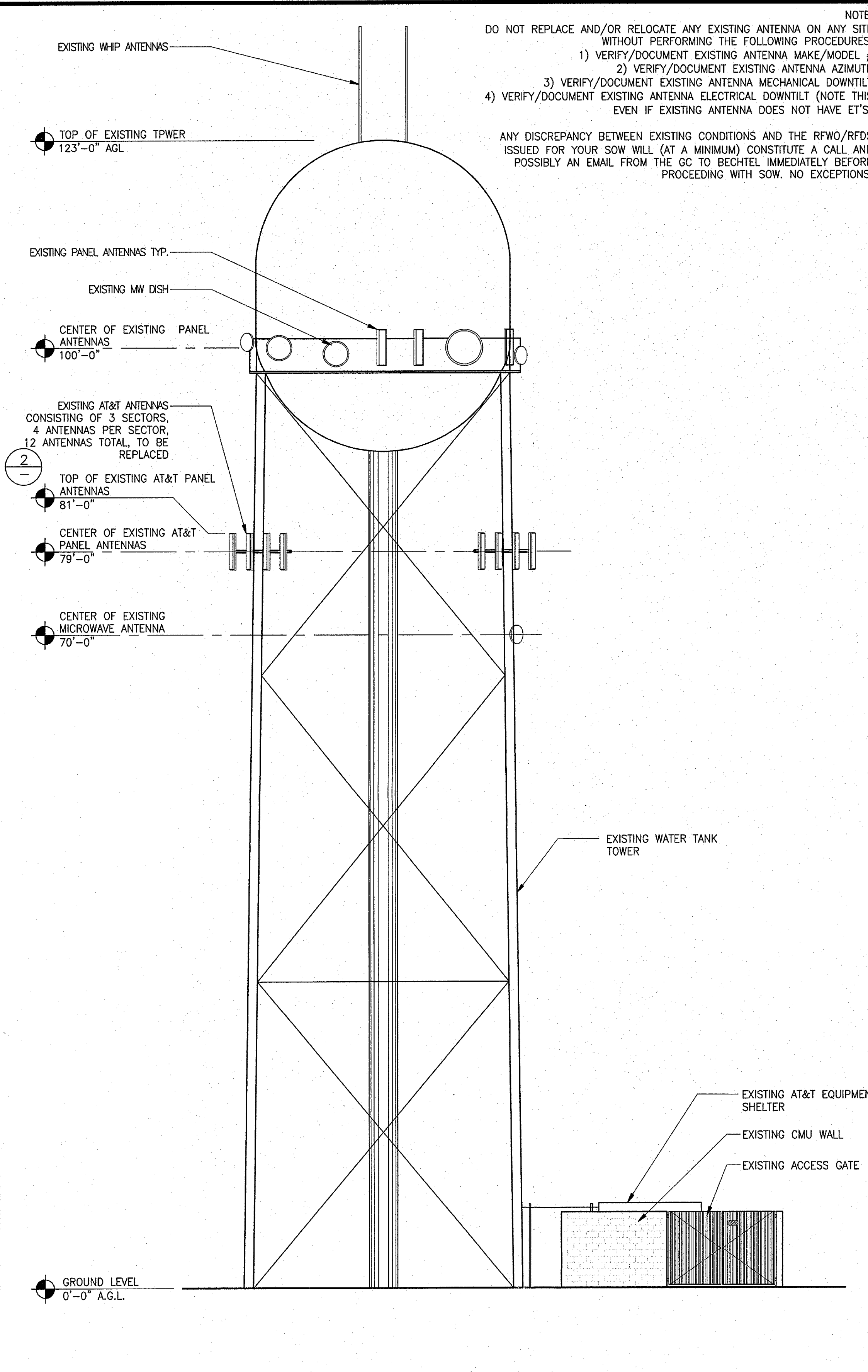


OVERALL SITE PLAN

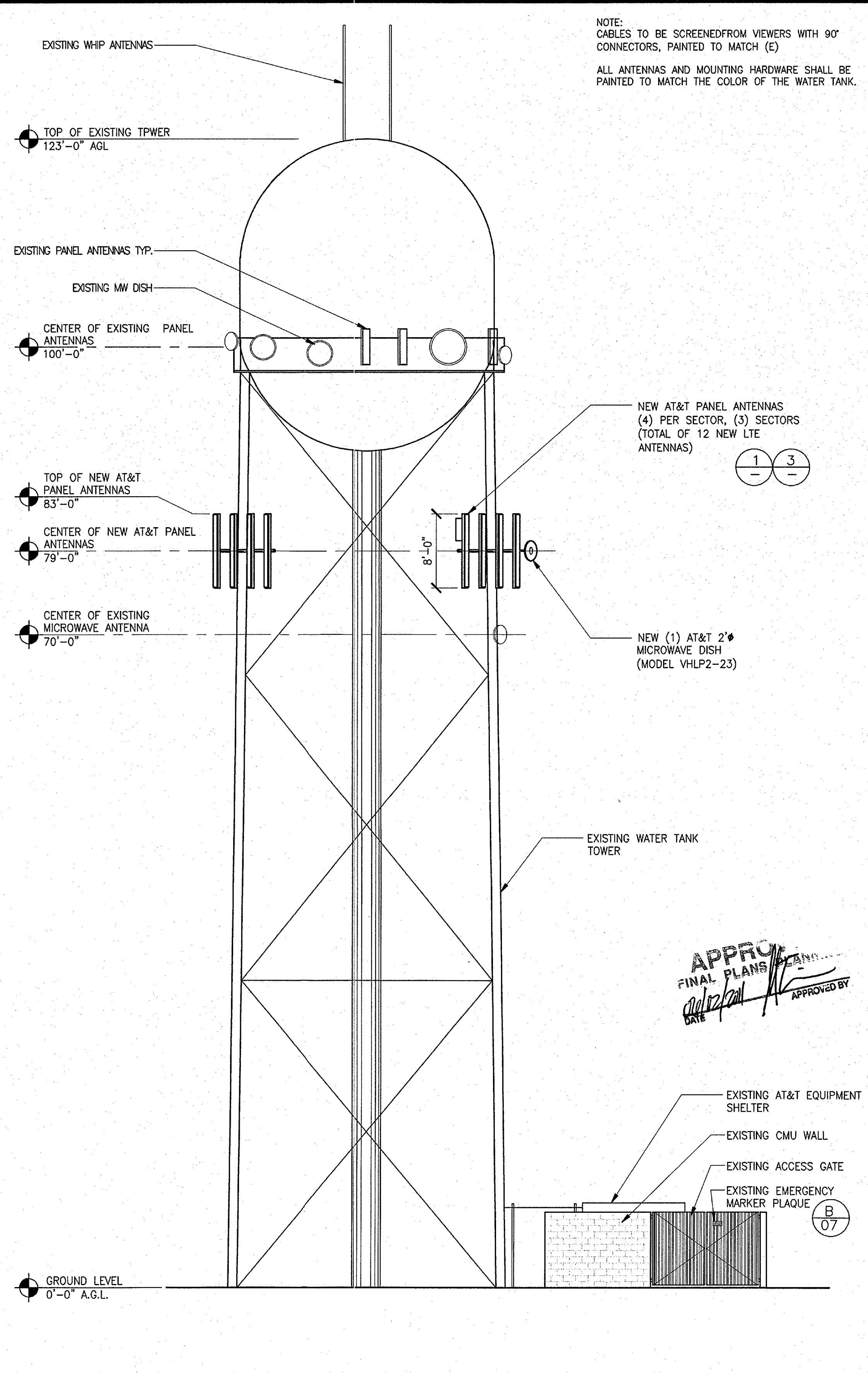
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P019	- 04	1

**CASE # 17-DR-2011
PLAN CHECK #1882-11**

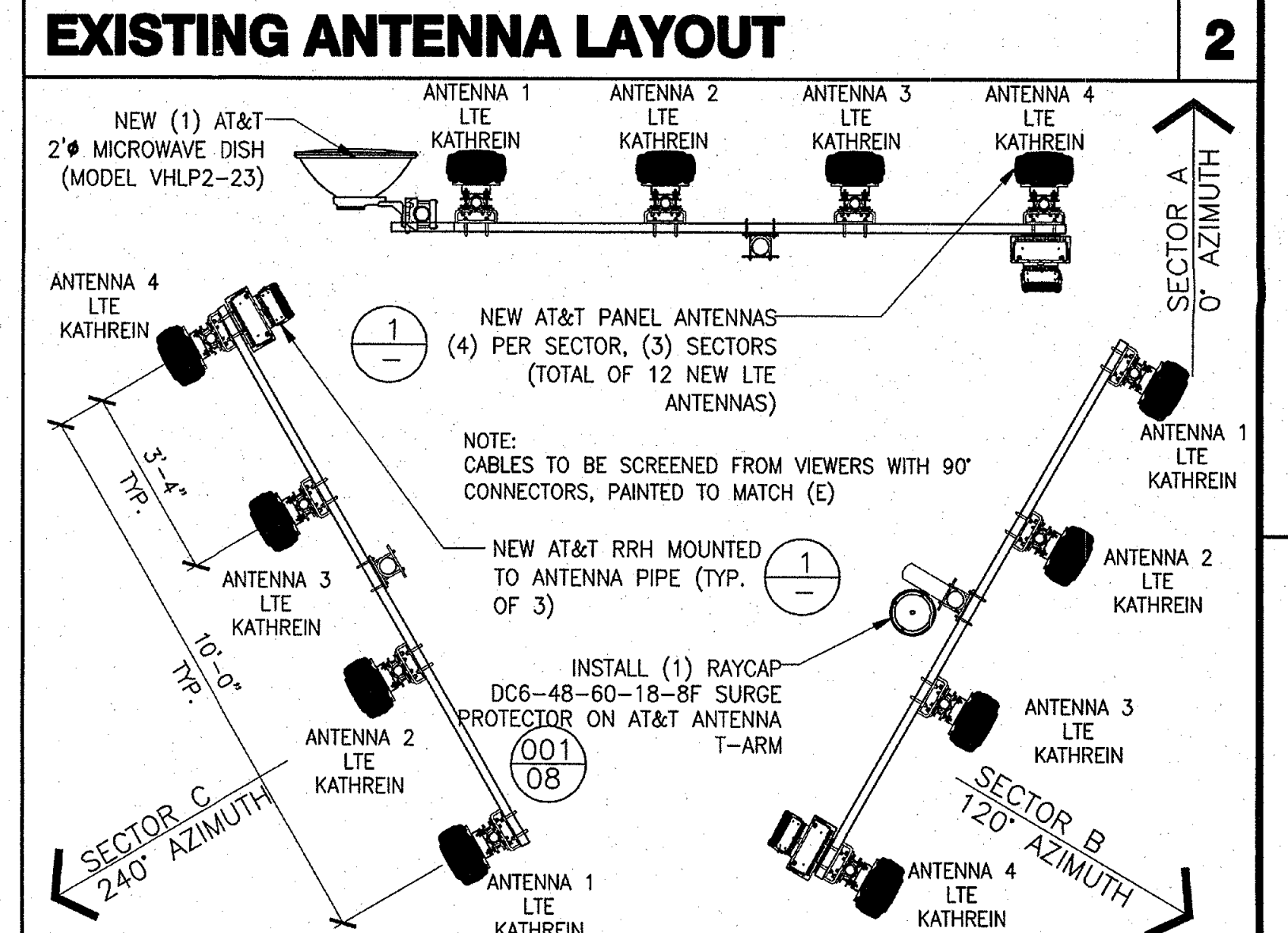
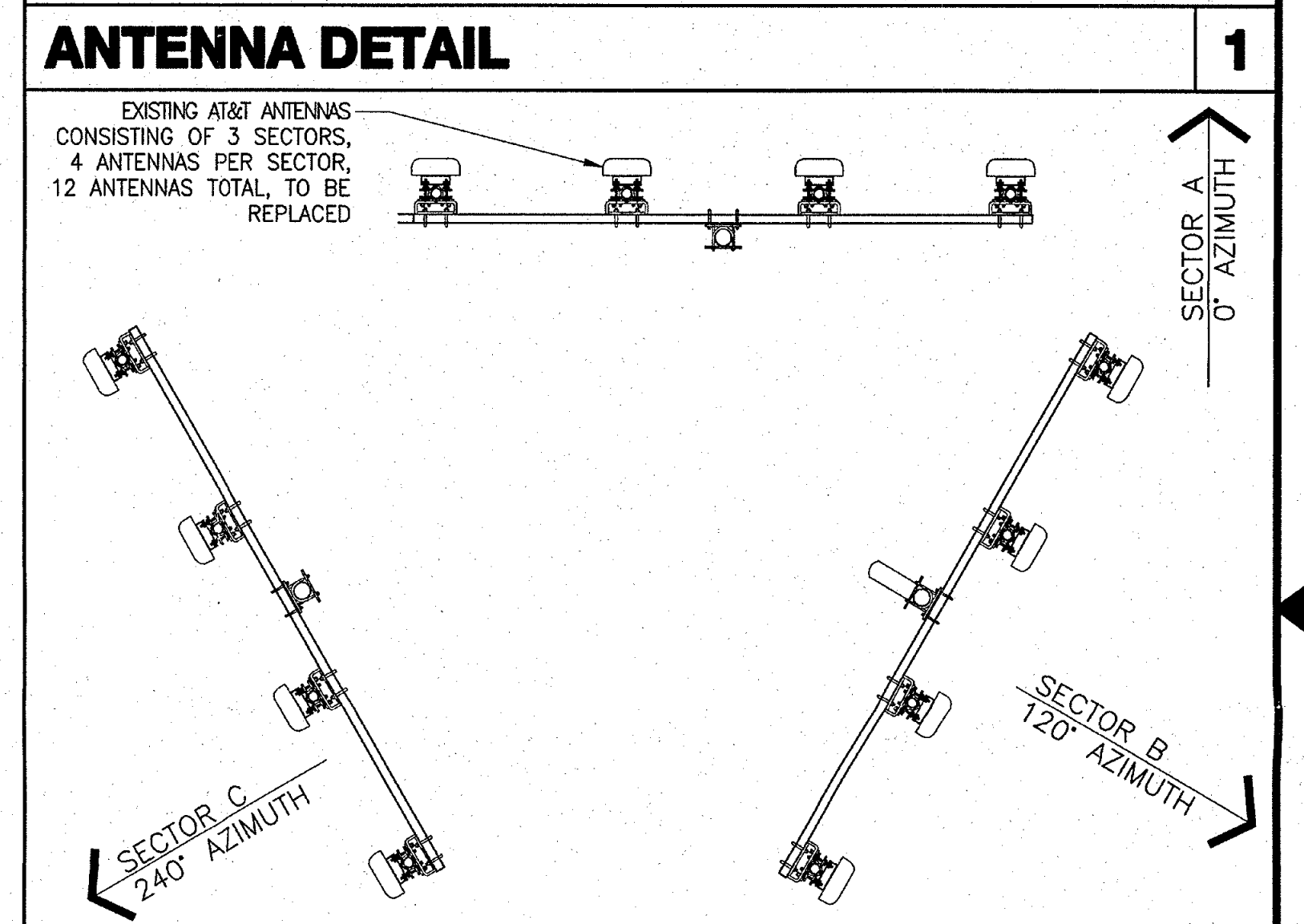
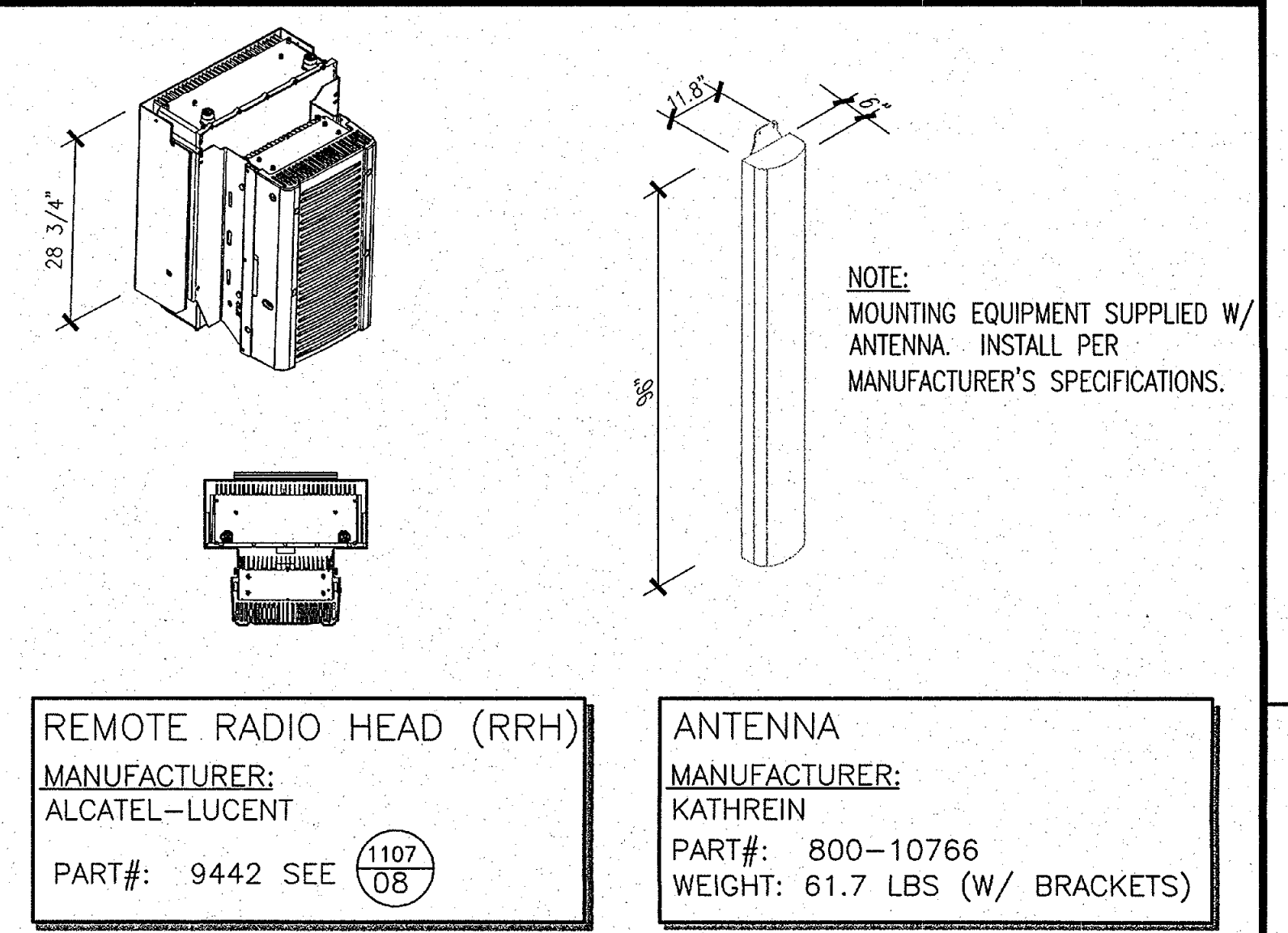
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NOTE:
DO NOT REPLACE AND/OR RELOCATE ANY EXISTING ANTENNA ON ANY SITE WITHOUT PERFORMING THE FOLLOWING PROCEDURES:
1) VERIFY/DOCUMENT EXISTING ANTENNA MAKE/MODEL #
2) VERIFY/DOCUMENT EXISTING ANTENNA AZIMUTH
3) VERIFY/DOCUMENT EXISTING ANTENNA MECHANICAL DOWNTILT
4) VERIFY/DOCUMENT EXISTING ANTENNA ELECTRICAL DOWNTILT (NOTE THIS EVEN IF EXISTING ANTENNA DOES NOT HAVE ET'S)
ANY DISCREPANCY BETWEEN EXISTING CONDITIONS AND THE RFWO/RFDS ISSUED FOR YOUR SOW WILL, (AT A MINIMUM) CONSTITUTE A CALL AND POSSIBLY AN EMAIL FROM THE GC TO BECHTEL IMMEDIATELY BEFORE PROCEEDING WITH SOW. NO EXCEPTIONS.



NOTE:
CABLES TO BE SCREENED FROM VIEWERS WITH 90° CONNECTORS, PAINTED TO MATCH (E)
ALL ANTENNAS AND MOUNTING HARDWARE SHALL BE PAINTED TO MATCH THE COLOR OF THE WATER TANK.



EXISTING ELEVATION SCALE 1/8" = 1'-0" **5**

PROPOSED ELEVATION SCALE 1/8" = 1'-0" **4**

PROPOSED ANTENNA LAYOUT **3**

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SCOTTSDALE, AZ 85252
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at&t
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SCALE AS SHOWN DESIGNED: DRAWN:



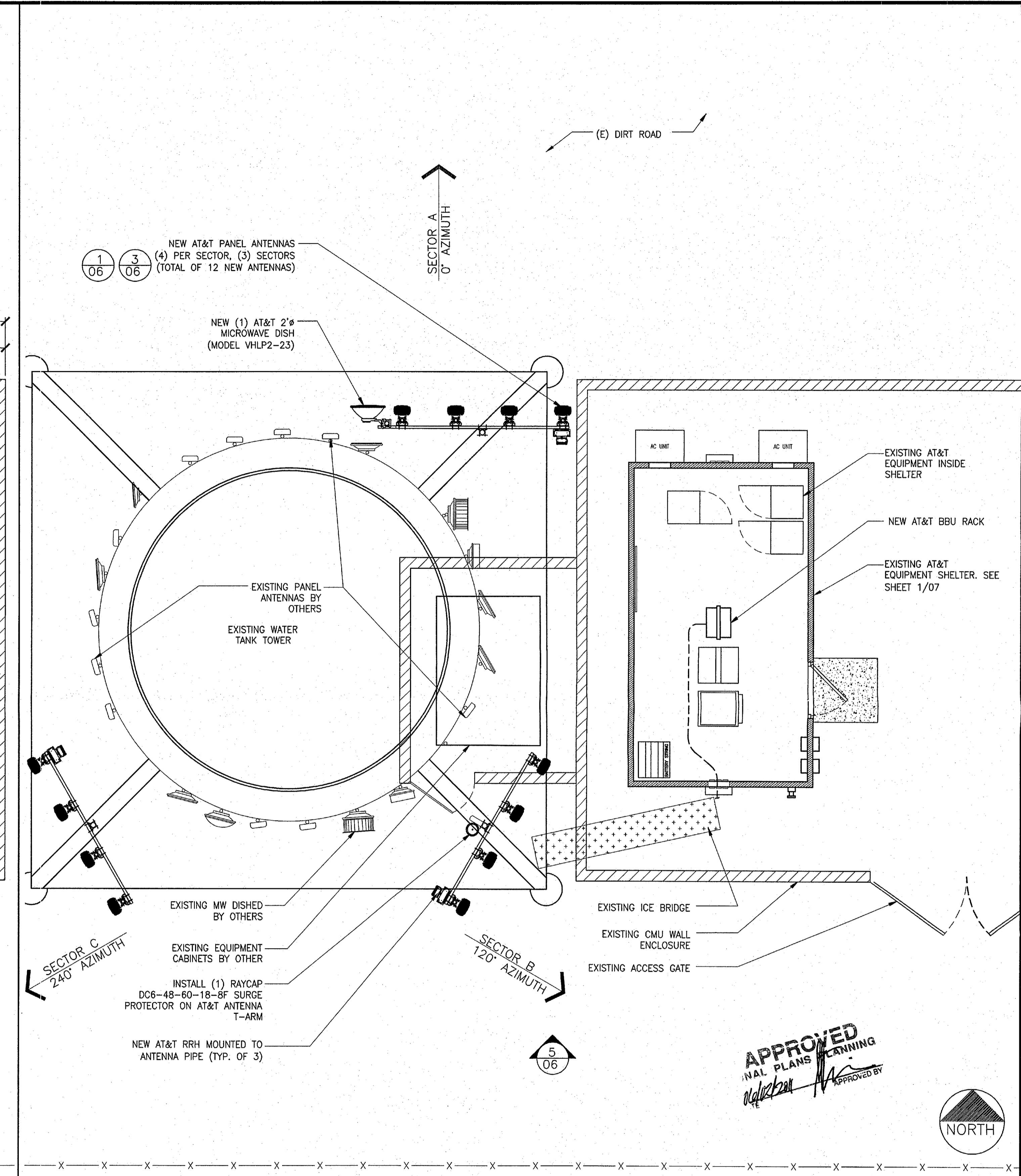
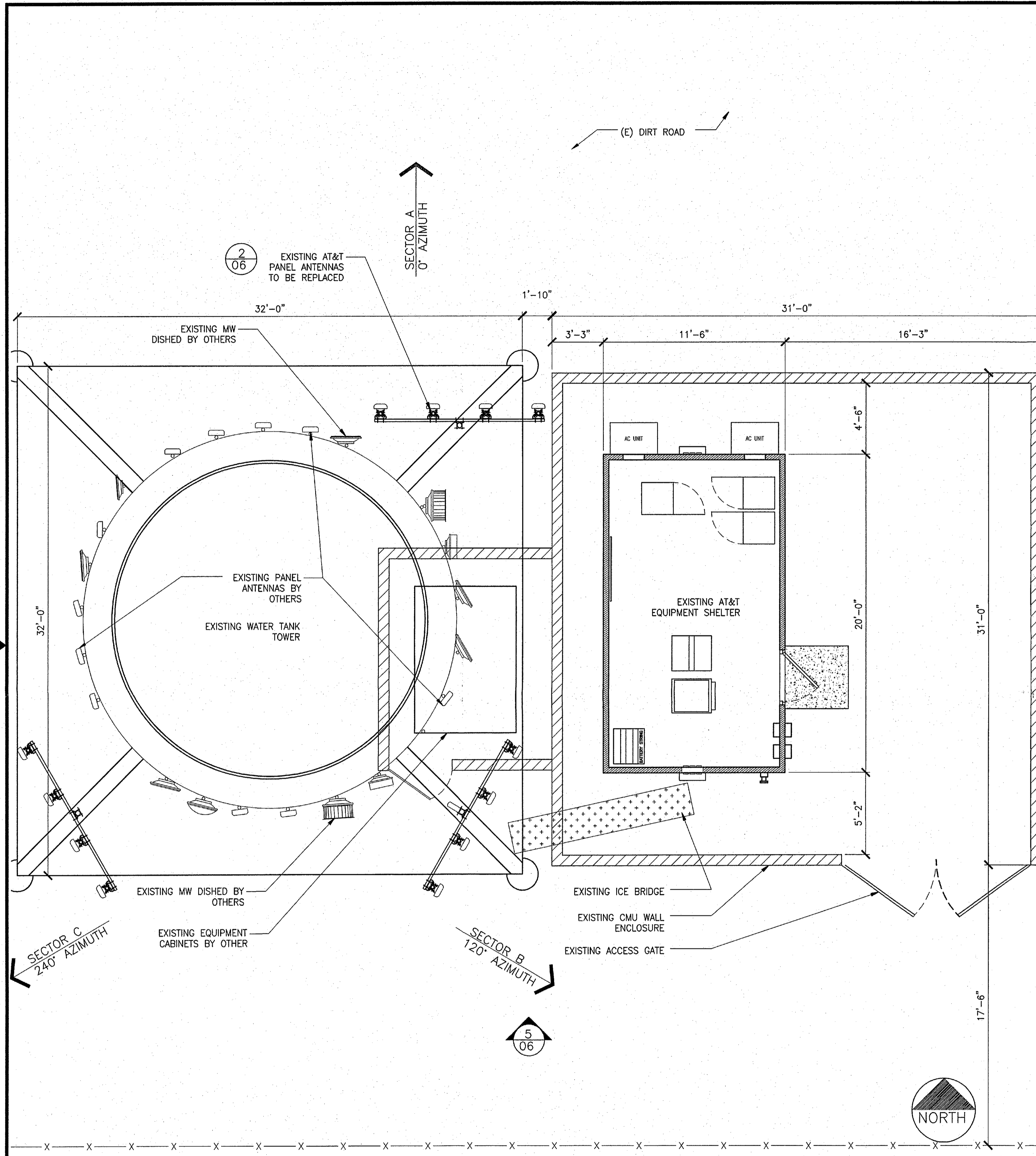
PROPOSED / EXISTING ELEVATIONS & ANTENNA DETAILS

PROJECT NUMBER	DRAWING NUMBER	REV
	P019 - 06	1

03-31-2013

CASE # 17-DR-2011
PLAN CHECK #1882-11

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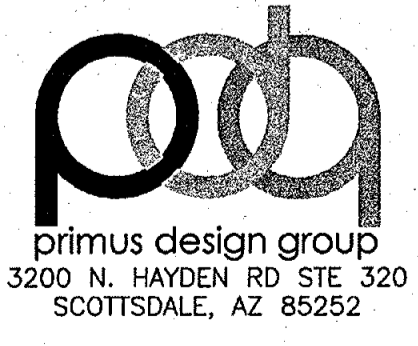


EXISTING DETAIL SITE PLAN

PROPOSED DETAIL SITE PLAN

SCALE 1/4" = 1'-0" 2

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



T-BIRD ACADEMY
P019
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SCALE AS SHOWN DESIGNED: DRAWN: 03-31-2013



EXISTING & PROPOSED DETAIL SITE PLAN

PROJECT NUMBER	DRAWING NUMBER	REV
P019	- 05	1

A

D

C

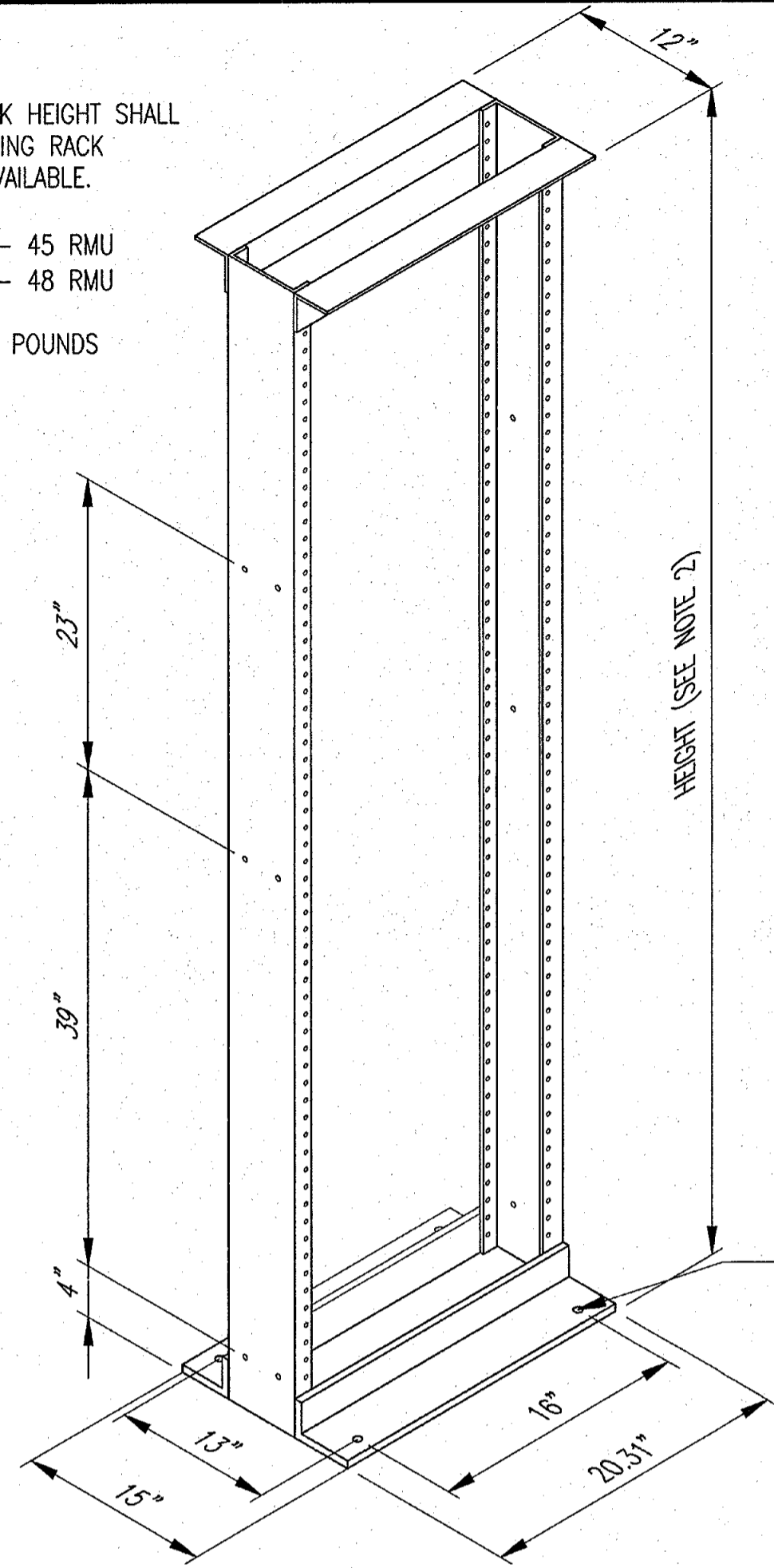
B

A

CASE # 17-DR-2011
PLAN CHECK #1882-11

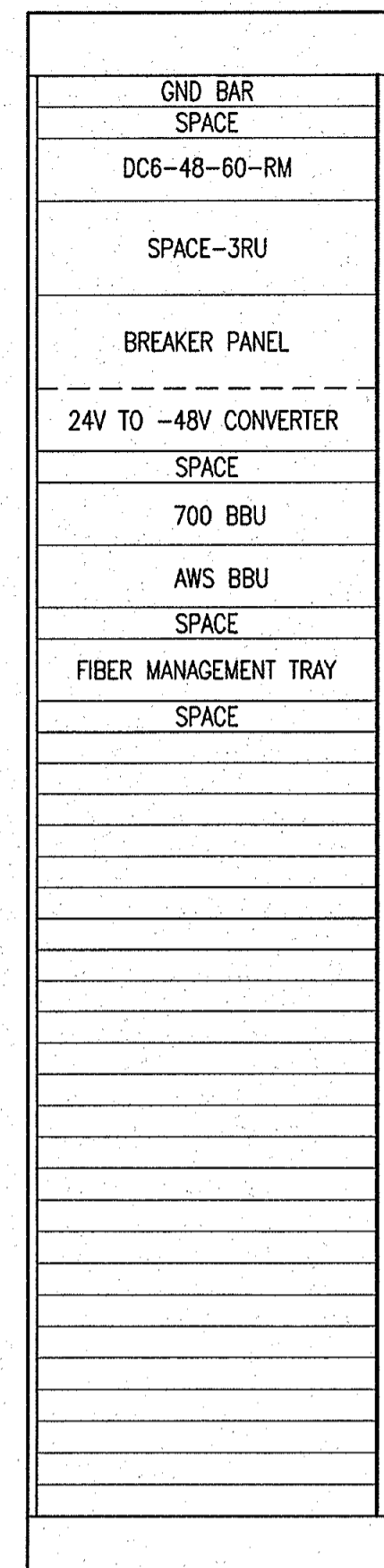
NOTE:

1. FLOOR MOUNTED RACK HEIGHT SHALL BE IDENTICAL TO EXISTING RACK HEIGHT IF SPACE IS AVAILABLE.
2. 7'-0" RACK HEIGHT - 45 RMU
7'-6" RACK HEIGHT - 48 RMU
3. RACK WEIGHT = 40± POUNDS



INDOOR FLOOR MOUNTED 19" RACK

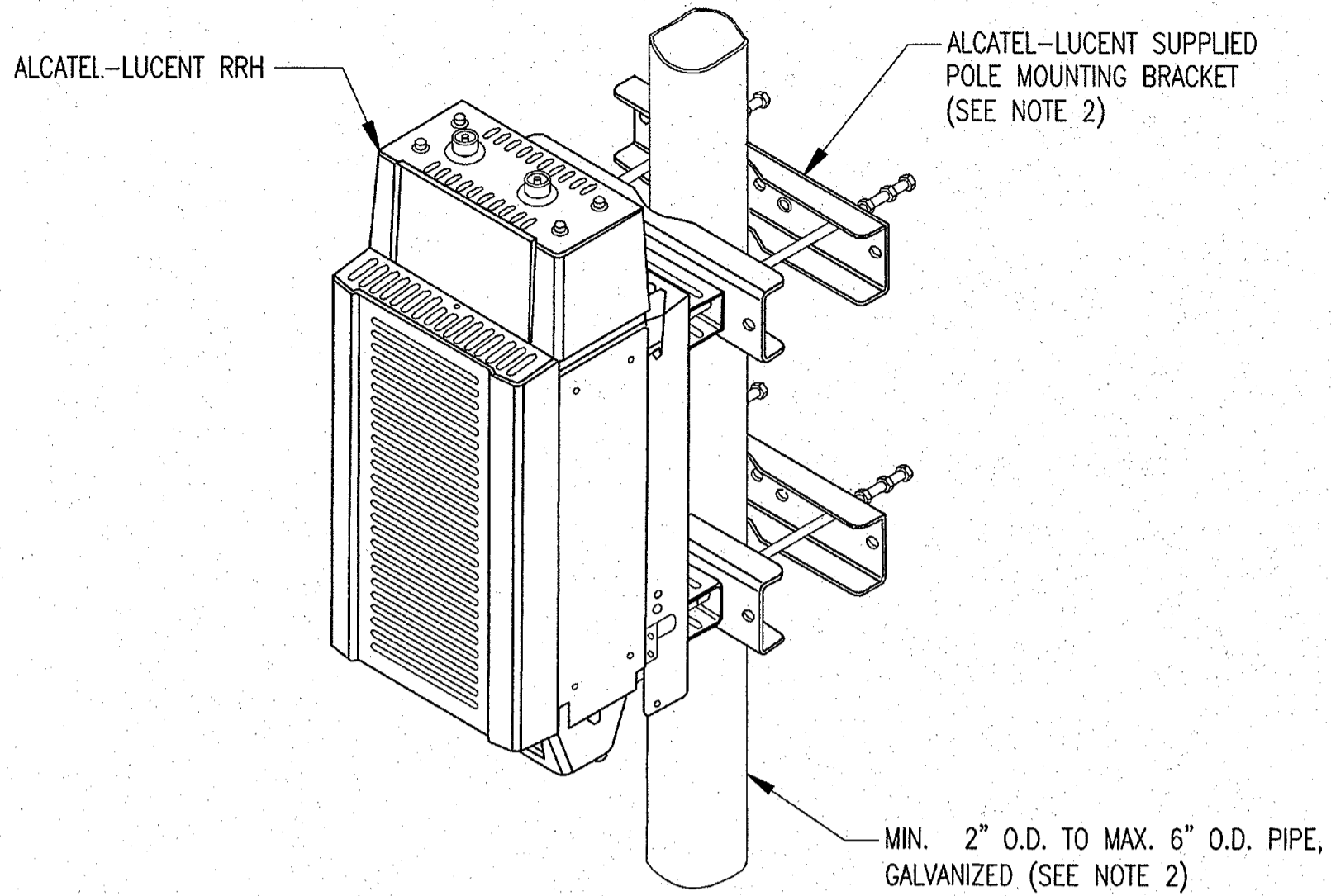
DETAIL 1126
NTS



RACK LAYOUT FOR LTE EQUIPMENT WITH SURGE SUPPRESSORS

DETAIL 1118
NTS

OTHER EQUIPMENT MAY BE MOUNTED IN THIS AREA AS NEEDED



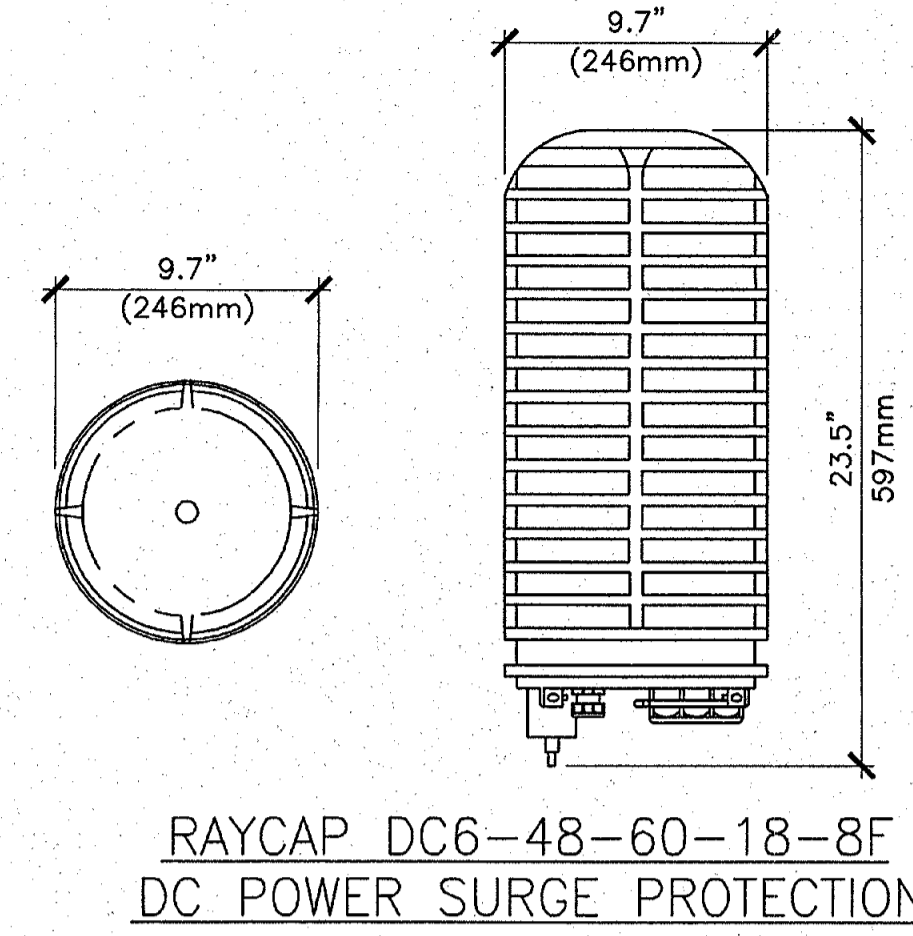
ISOMETRIC VIEW

NOTES:

1. ALCATEL-LUCENT (ALU) VIA AT&T SUPPLIES RRH, RRH POLE-MOUNTING BRACKET. SUBCONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING ALU RRH POLE-MOUNTING BRACKET. ALU INSTALLS RRH AND MAKES CABLE TERMINATIONS.
2. FOR POLE DIAMETERS FROM 6" TO 15", ALCATEL-LUCENT CAN SUPPLY A PAIR OF POLE MOUNTING METAL BANDS WITH BOLTING WELDMENT.

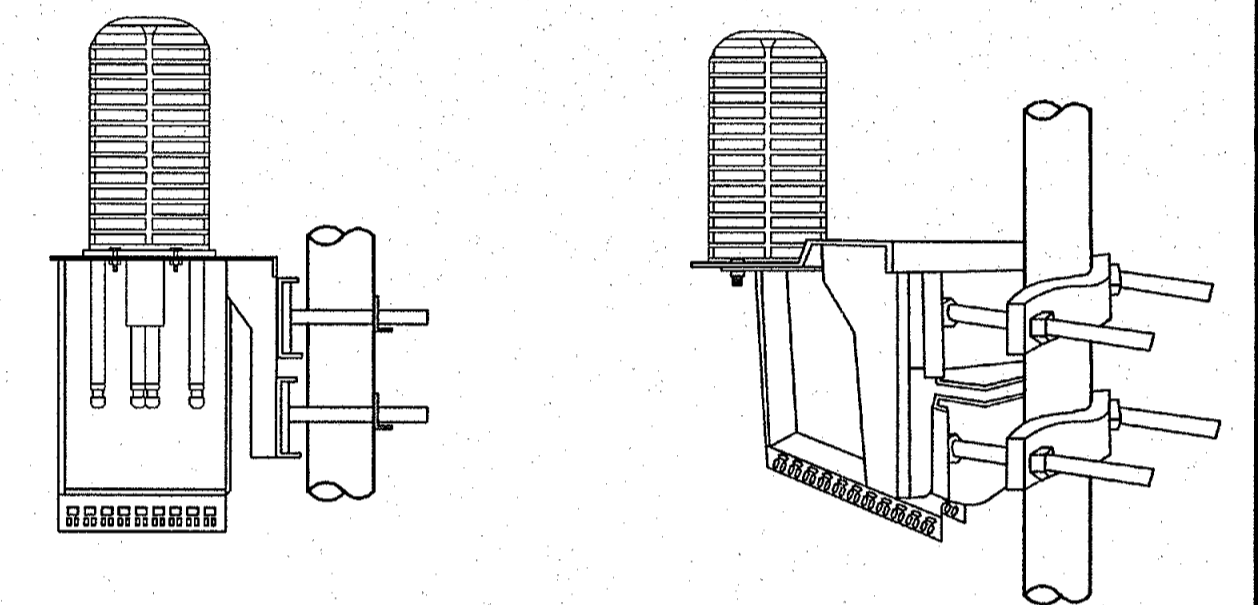
ALCATEL-LUCENT 9442 REMOTE RADIO HEAD (RRH) POLE MOUNT

DETAIL 1107
NTS



RAYCAP DC6-48-60-18-8F DC POWER SURGE PROTECTION

DETAIL 1102
NTS



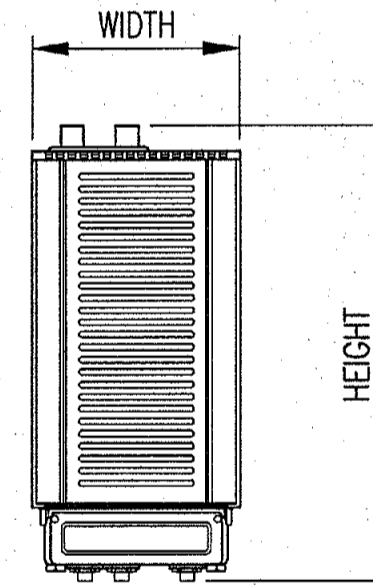
OVER VOLTAGE PROTECTOR (OVP) POLE-MOUNT BASE ASSEMBLY

DETAIL 1116
NTS

SIZE AND WEIGHT TABLE

RRH	WIDTH	DEPTH	HEIGHT W/O CABLE MANAGEMENT COVER	WEIGHT W/O BRACKET
RRH 700 MHz 2X40 (80W)	12.2"	10.8"	21"	51 LBS.
RRH AWS 2X40 (80W)	12"	9"	25"	43 LBS. (W/O SOLAR SHIELD)

NOTE: DIMENSIONS INCLUDE MOUNTING BRACKET, SOLAR SHIELD AND CONNECTORS.

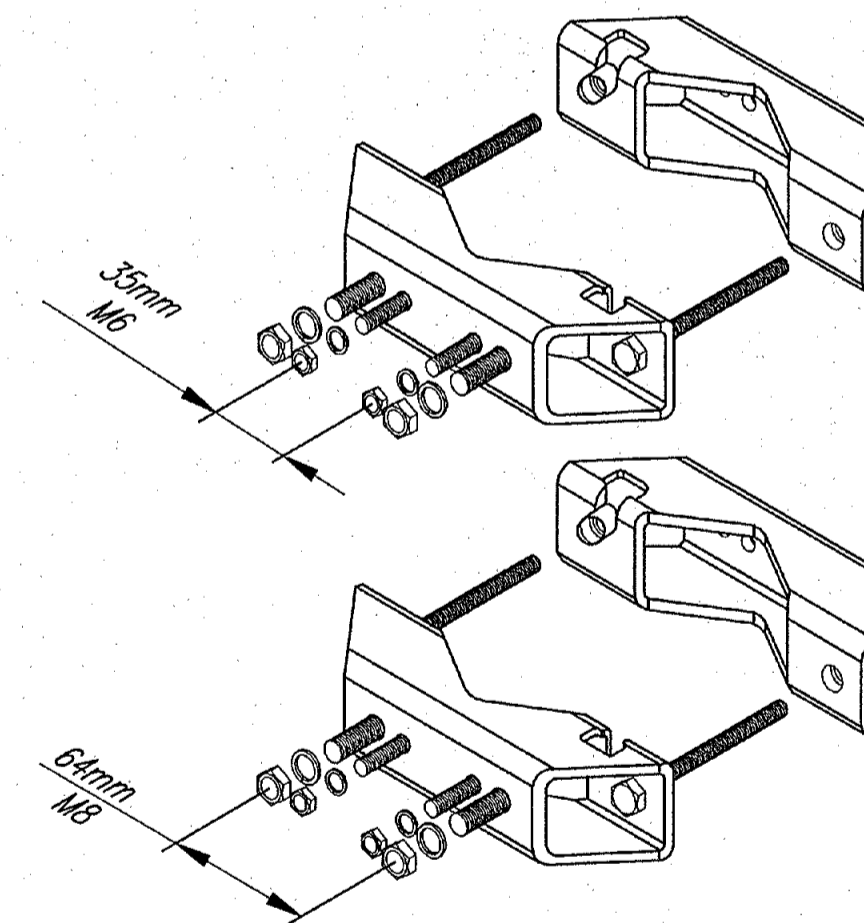


ALCATEL-LUCENT 9442 REMOTE RADIO HEAD (RRH)

DETAIL 1104
NTS

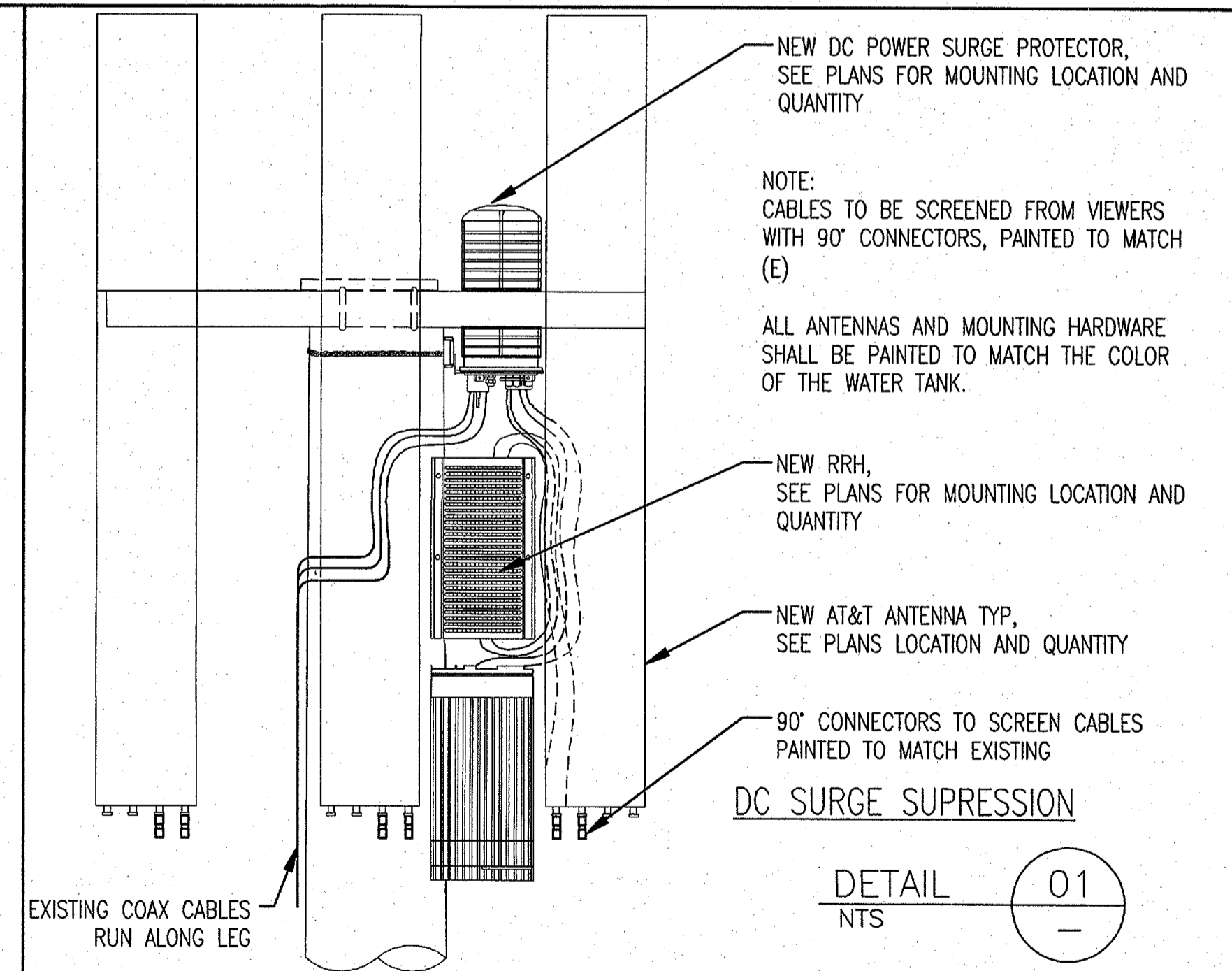
MINIMUM CLEARANCE TABLE

RRH CABINET	CLEARANCES (INCHES)	COMMENTS
FRONT	36"	INSTALLATION ACCESS
REAR	2"	ZERO REAR CLEARANCE IS ALLOWED USING SUPPLIED MOUNTING BRACKETS
RIGHT	4"	AIR FLOW
LEFT	4"	AIR FLOW
TOP	12"	AIR FLOW
BOTTOM	12"	CONDUIT ROUTING



2x738 546 KATHEIN MOUNTING KIT

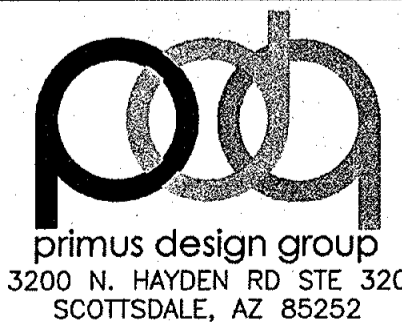
DETAIL 1509
NTS



DC SURGE SUPPRESSION

DETAIL 01
NTS

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SCALE AS SHOWN DESIGNED: DRAWN: 03-31-2013



DETAILS

PROJECT NUMBER	DRAWING NUMBER	REV
	P019 - 08	1

6

5

4

3

2

CASE # 17-DR-2011
PLAN CHECK #1882-11