

FIRST AMENDMENT TO LEASE AGREEMENT

THIS FIRST AMENDMENT TO LEASE AGREEMENT (“Amendment”) is made and entered into by and between **Fort Bend County**, a body corporate and politic under the laws of the State of Texas (“Lessor”) and **T-Mobile West LLC**, a Delaware limited liability company, f/k/a T-MOBILE WEST CORPORATION, a /Delaware corporation as successor in interest to VoiceStream Houston, Inc., (herein after referred to as “Lessee”).

Recitals

The parties hereto recite, declare and agree as follows:

A. Lessor and Lessee (or as applicable, their respective predecessors in interest) entered into a LEASE AGREEMENT dated April 6, 2004 , with respect to the Premises located at 309 S 4th Street, Richmond, TX.

B. Lessor and Lessee desire to enter into this Amendment in order to modify and amend certain provisions of the Lease.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Owner and Provider covenant and agree as follows:

1. Effective as of July 24, 2012, Lessor will have the right to modify its Antenna Facilities as described and depicted on the Construction Drawings attached as Exhibit A, which is attached hereto and by this reference incorporated herein, and Owner hereby consents to and approves of the modifications described and depicted on Exhibit A in all respects.

2. The parties’ notice addresses in the Lease are deleted in their entirety and replaced with the following:

If to Lessee:

T-Mobile USA Inc.
Attn: Lease Compliance/Site No. A3F0194A
12920 SE 38th Street
Bellevue, WA 98006

If to Lessor:

Fort Bend County
301 Jackson, Suite 719
Richmond, Texas 77469

3. The terms and conditions of the Lease Agreement are incorporated herein by this reference, and capitalized terms used in this Amendment shall have the same meanings such terms are given in the Lease Agreement. Except as specifically set forth herein, this Amendment shall in no way modify, alter or amend the remaining terms of the Lease Agreement, all of which are ratified by the parties and shall remain in full force and effect. To the extent there is any conflict between the terms and conditions of the Lease Agreement and this Amendment, the terms and conditions of this Amendment will govern and control.


Site # **A3F0194A**
Site Name: **William Travis Bldg.**
Market: **Houston**


4. Lessor represents and warrants to Lessee that the consent or approval of no third party, including, without limitation, a lender, is required with respect to the execution of this Amendment, or if any such third party consent or approval is required, Lessor has obtained any and all such consents or approvals.

IN WITNESS WHEREOF, the parties have executed this Amendment effective as of the date of execution by the last party to sign.

Fort Bend County,
a corporate body under the political laws
of the State of Texas

T-Mobile West LLC,
a Delaware limited liability company

By: 
Name: Robert E. Hebert
Title: County Judge
Date: July 24, 2012

By: 
Name: ANTHONY RANDIO
Title: MANAGER, DEVELOPMENT
Date: 7-17-12

Attest:


Dianne Wilson, County Clerk

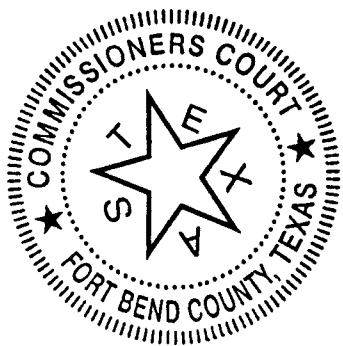


EXHIBIT A

See Attached Drawings

THIS DRAWING IS COPYRIGHTED AND IS THE SOLE PROPERTY OF THE ENGINEER. IT IS PROHIBITED TO REPRODUCE OR USE OF THIS DRAWING OR ANY PART THEREOF WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.

REVISIONS	DATE
PERMITTED ONLY	6/4/12
FINAL CONSTRUCTION	6/4/12

ARIA SERVICES, INC.
 12511 TAYLOR ROAD
 SUITE 1100
 HOUSTON, TX 77048
 WWW.ARIASERVICES.COM
 TX FIRM REG# F-13104

T-Mobile
 Get More From Life

T-MOBILE USA, INC.
 2 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77048

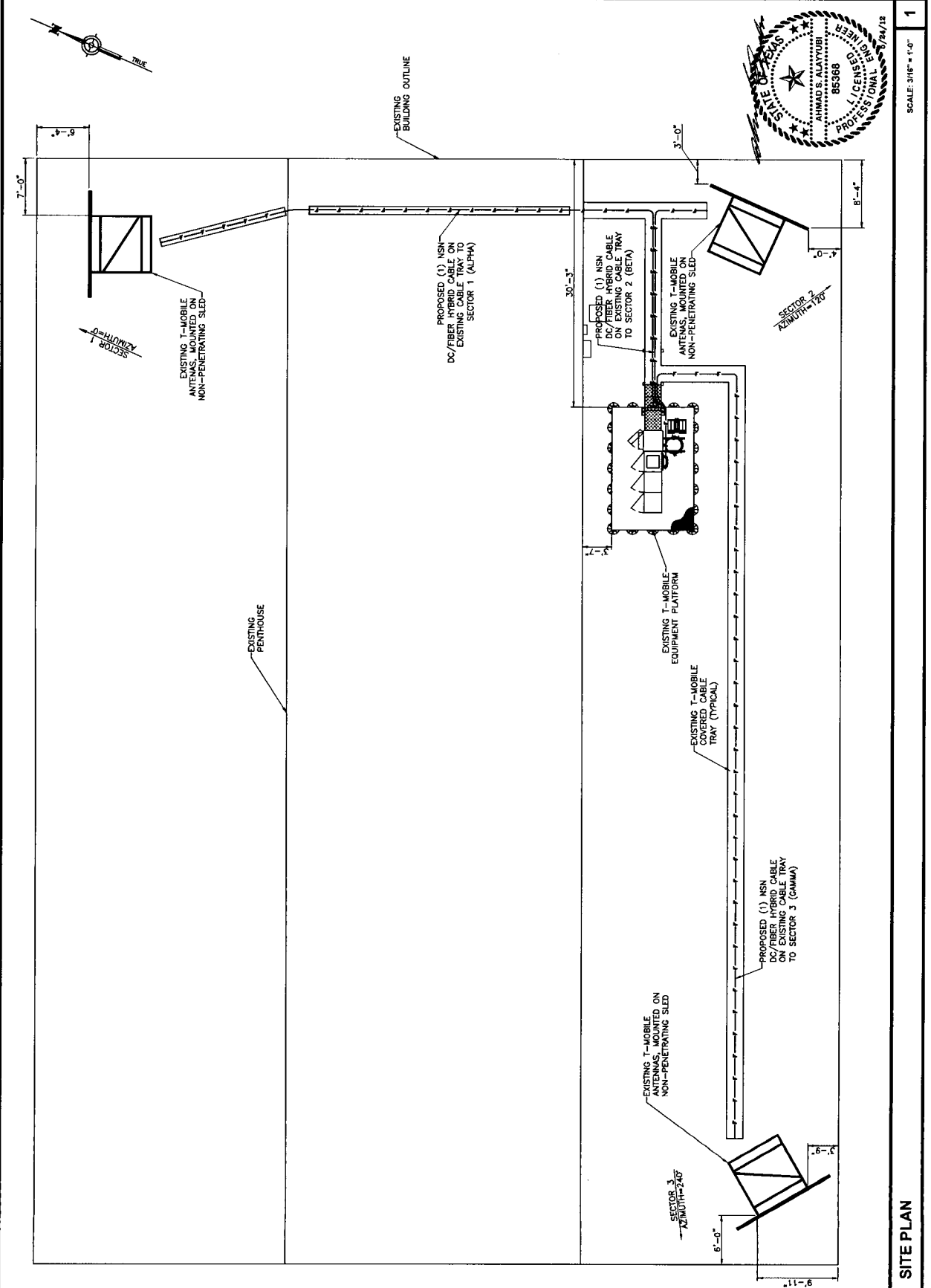
SITE PLAN

WILLIAM TRAVIS BUILDING
 A3F0194A
 308 S. JEFF
 RICHMOND, TX 77469

A-1

SCALE: 3/16" = 1'-0"

1



REVISIONS	DATE
PERMITTING SHEET	6/9/12
FINAL CONSTRUCTION	6/14/12



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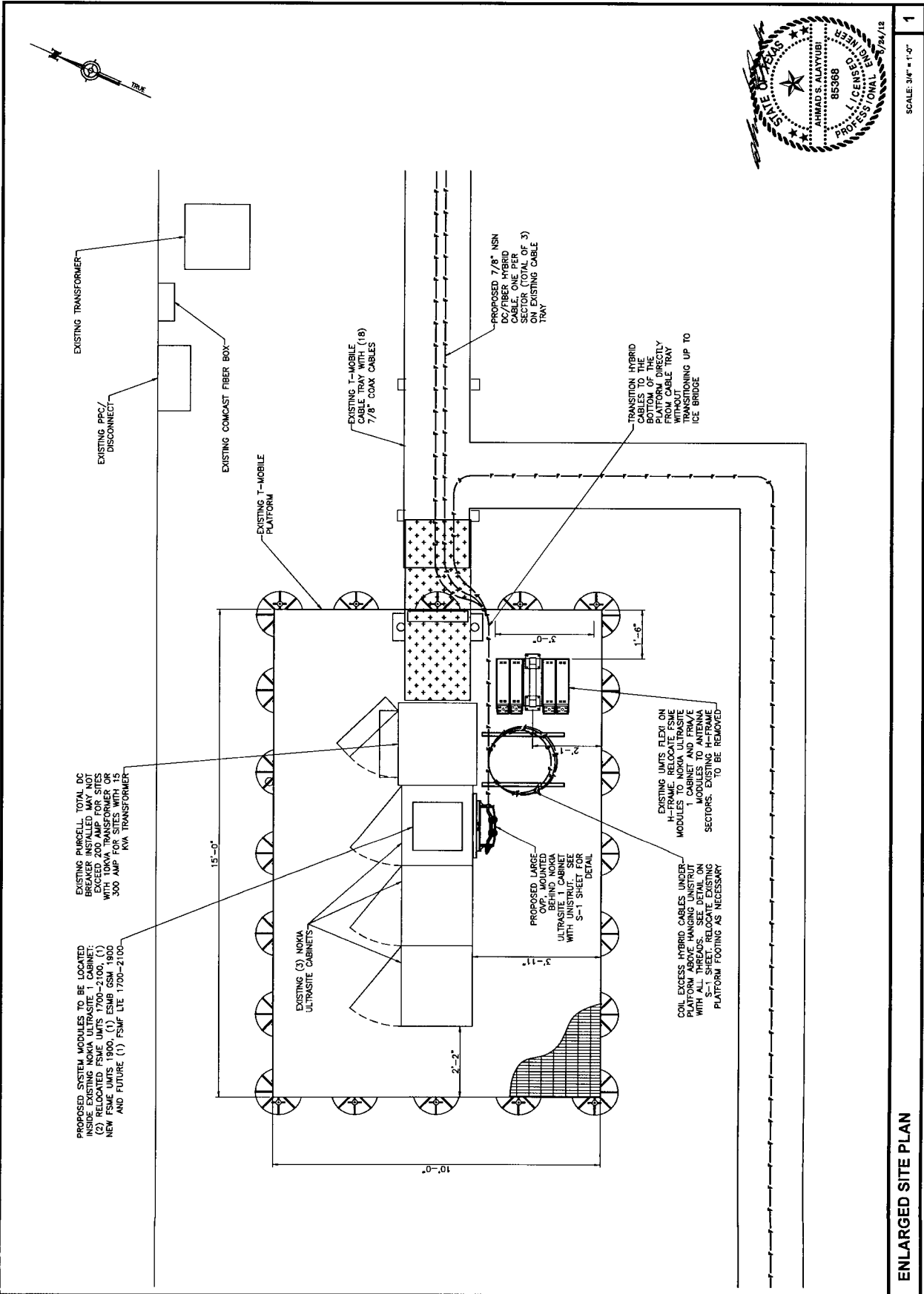
T-MOBILE USA, INC.
SUITE 1100
3 GREENWAY PLAZA
HOUSTON, TX 77046

ENLARGED SITE PLAN

WILLIAM TRAVIS BUILDING
A3F0194A
100 S. TEXAS
RICHMOND, TX 77469

DATE	6/9/12
PROJECT	T-Mobile
SCALE	3/4" = 1'-0"
SHEET NO.	A-2

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SCALE: 3/4" = 1'-0"

ENLARGED SITE PLAN

REVISIONS	DATE
1	4/9/12
2	5/14/12



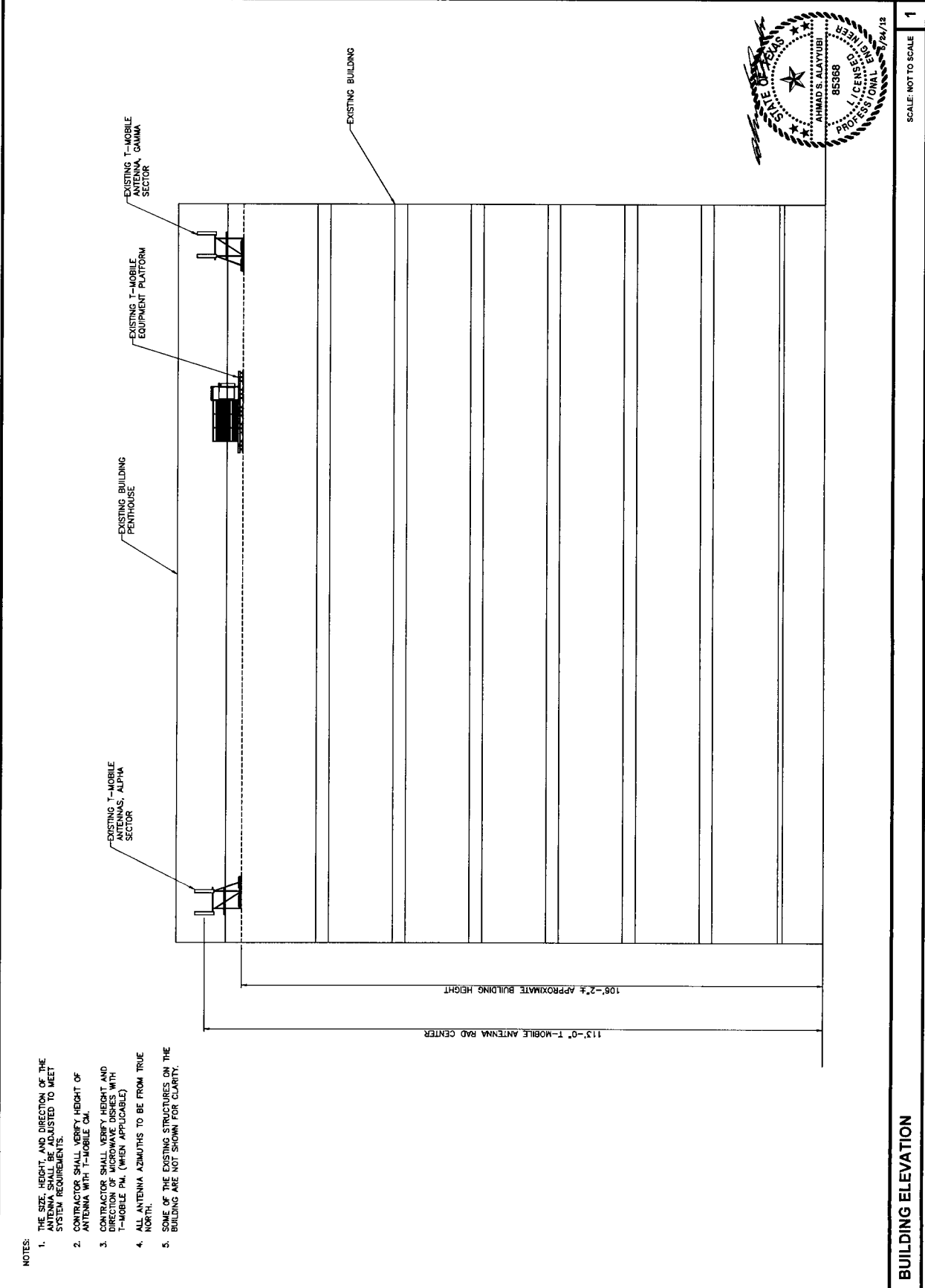
Get More From Life
F-Mobile
 T-MOBILE USA, INC.
 2 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77046

ELEVATION
 WILLIAM TRAVIS
 BUILDING
 A3F0194A
 200 S. AUSTIN
 RICHMOND, TX 77469

DRAWN BY	
CHECKED BY	
DATE	
SCALE	
PROJECT NO.	

A-3

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- NOTES:
1. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
 2. CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH T-MOBILE CM.
 3. CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF MICROWAVE DISHES WITH T-MOBILE PM, (WHEN APPLICABLE)
 4. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
 5. SOME OF THE EXISTING STRUCTURES ON THE BUILDING ARE NOT SHOWN FOR CLARITY.

BUILDING ELEVATION

SCALE: NOT TO SCALE

1

DATE	5/14/12
ISSUED BY	5/14/12
PROJECT NO.	
DATE	
ISSUED BY	
PROJECT NO.	
DATE	
ISSUED BY	
PROJECT NO.	

ARIA SERVICES, INC.
 12811 7957-4387
 TX FINN REG# F-13104

T-Mobile
 Get More From Life

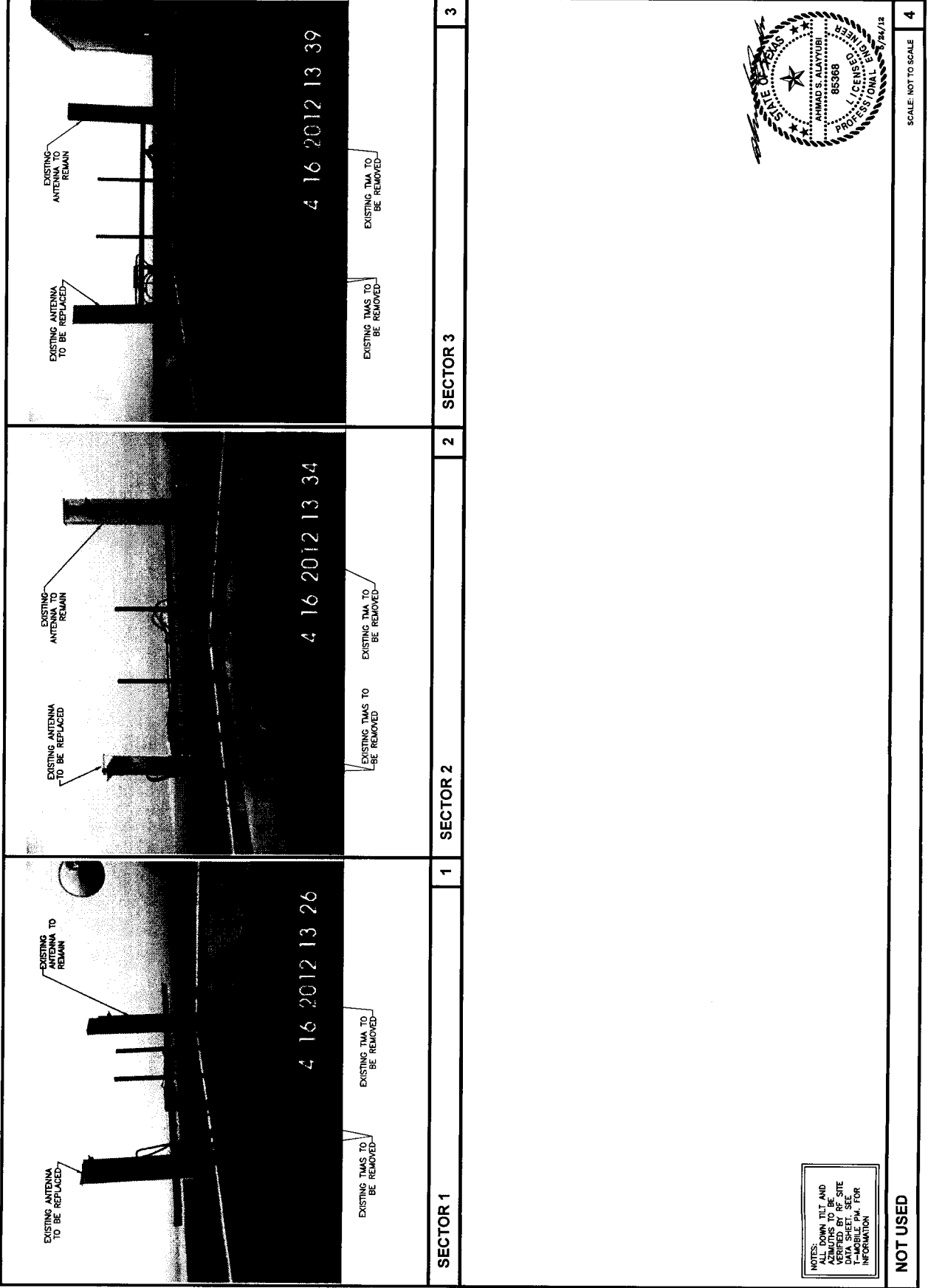
T-MOBILE USA, INC.
 SUITE 1100
 2 GREENWAY PLAZA
 HOUSTON, TX 77046

EXISTING ANTENNA LAYOUT

WILLIAM TRAVIS BUILDING
 A3F0194A
 308 S. 47E
 HOUSTON, TX 77068

DATE: 5/14/12
 DRAWN BY: [blank]
 CHECKED BY: [blank]
 DATE: [blank]
 MAY 16 2012
 1:11
 85368
 STATE OF TEXAS
 LICENSED PROFESSIONAL ENGINEER
 4-4

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NOTES:
 ALL DOWN TILT AND
 MEASUREMENTS TO BE SITE
 VERIFIED BY THE SITE
 DATA SHEET. SEE
 T-MOBILE PM FOR
 INFORMATION

SCALE: NOT TO SCALE

4

NOT USED

REVISIONS	DATE
PRELIMINARY ONLY	5/14/12
FINAL CONSTRUCTION	5/14/12

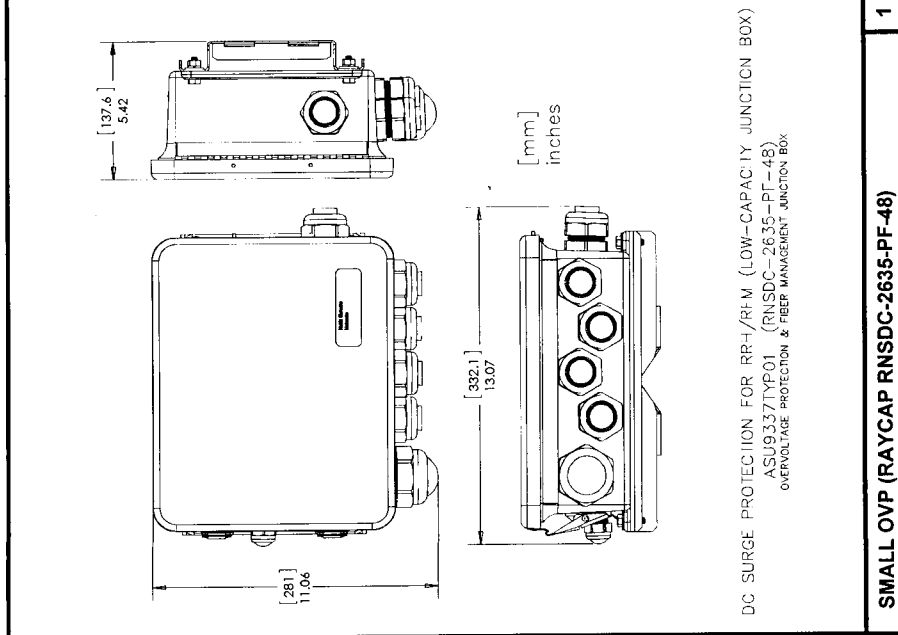
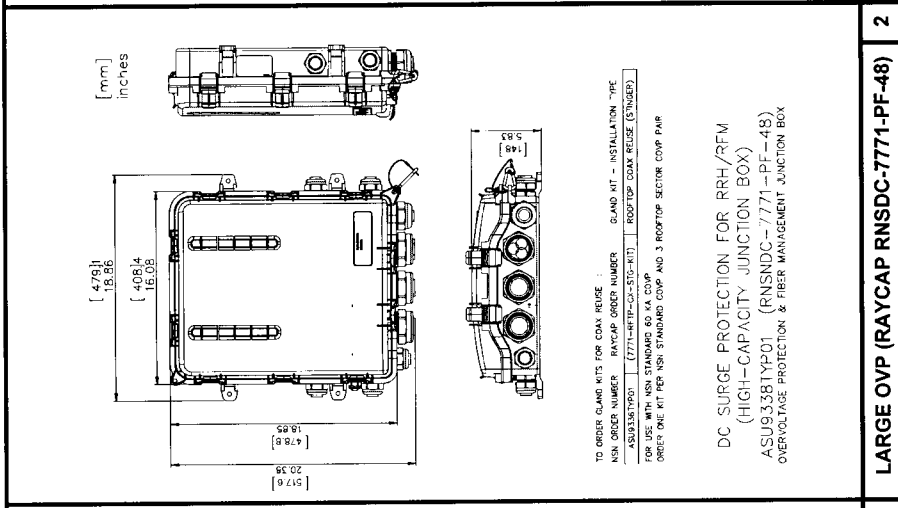
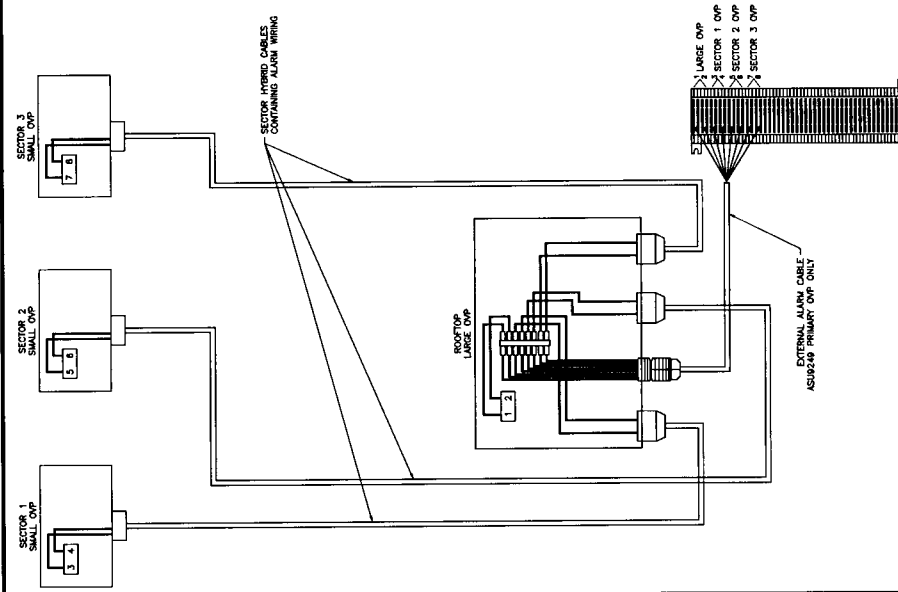
ARIA SERVICES, INC.
 (281) 795-4387
 10000 W. HUNTERS BLVD. SUITE 1100
 HOUSTON, TX 77046

T-Mobile
 Get More From Life.
 T-MOBILE USA, INC.
 SUITE 1100
 GREENWAY PLAZA
 HOUSTON, TX 77046

EQUIPMENT SPECIFICATION
 WILLIAM TRAVIS BUILDING
 ASFT0194A
 300 S. 4TH
 RICHMOND, TX 77469

DRAWN BY: GAD
 CHECKED BY: T/A
 DATE: MAY 6, 2012
 PROJECT NO.: 101101
 SHEET NO.: A-7

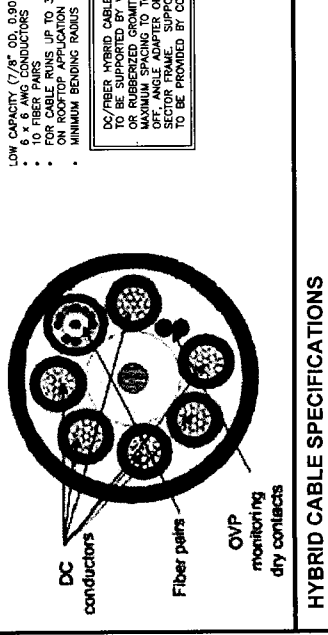
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1 LARGE OVP (RAYCAP RNSDC-7771-PF-48)

LOW CAPACITY (7/8" OD, 0.90 LBS/FT)
 • 6 x 6 AWG CONDUCTORS
 • FOR CABLE BUNDS UP TO 300'-0"
 • ON ROOFTOP APPLICATION
 • MINIMUM BENDING RADIUS IS 15"

DC/FIBER HYBRID CABLES AND JUMPERS TO BE SUPPORTED BY VELCRO STRAP
 MAXIMUM SPACING TO TOWER STAND OFF, ANGLE ADAPTER OR ANTENNA SECTOR FRAME. SUPPORT MATERIALS TO BE PROVIDED BY CONTRACTOR



SCALE: NOT TO SCALE

SCALE: NOT TO SCALE

SCALE: NOT TO SCALE

DATE	1/14/12
REVISIONS	
DESCRIPTION	
DATE	
REVISIONS	
DESCRIPTION	



ARIA SERVICES, INC.
 (281) 797-4387
 11000 W. HUNTERS LANE
 HOUSTON, TX 77044

T-Mobile
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T-Mobile USA, Inc.
 2 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77046

ANTENNA CONFIGURATION CHART

WILLIAM TRAVIS BUILDING
 A3F0194A
 800 S. 4TH
 HOUSTON, TX 77049

A-8

STATE OF TEXAS
 COMM. #
 7744
 AHMAD S. ALAYUBI
 MAY 6, 2010
 PROFESSIONAL ENGINEER
 65368

THIS DOCUMENT IS THE PROPERTY OF T-MOBILE USA, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED ON THIS CHART. IT IS TO BE RETURNED TO T-MOBILE USA, INC. UPON COMPLETION OF THE PROJECT. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

NOTE:
 ALL FIBER RUNS TO BE CONTAINED IN A SINGLE TRUNK OR RACEWAY. FIBER/DC/FIBER/CABLE FROM LARGE OVP TO SMALL OVP. (COLOR CODE COAX JUMPERS ONLY)

(*) EXISTING COAX CABLES TO BE REUSED AND AS FOLLOWS:
 (1) EXISTING COLOR CODING SCHEME ON MAIN COAX CABLE WILL BE REUSED AND AS FOLLOWS:
 ALPHA, 11 2T
 BETA, 11 2T
 GAMMA, 1B 2B
 DELTA, 1W 2W



ANTENNA KEY

ANTENNA NUMBER	COLOR CODE (SEE NOTE 3, A-9)	BEAM WIDTH	ANTENNA VENDOR	MODEL NO.	AZIMUTH	ELECTRICAL DOWNTILT	MECHANICAL DOWNTILT	HEIGHT TO THE CENTER OF ANTENNA FROM GROUND LEVEL	COAXIAL FEEDER		HYBRID CABLE FEEDER	
									SIZE	LENGTH	TYPE	LENGTH
A-1 LITE 1700-2100	YELLOW 1	65'	RFS	APX17DMW_17DMWS	0°	TBD	0°	113'-0"	-	-	-	-
	YELLOW 2											
	YELLOW 3											
A-2 UMITS 1700-2100	GREEN 1	65'	RFS	APXV1B_206517S_C	0°	TBD	0°	113'-0"	7/8" (C)	150'	LOWCAP DC/FIBER HYBRID 7/8"	130'-0"
	GREEN 2											
	RED 1											
A-3 GSM 1900	RED 1	65'	RFS	APX17DMW_17DMWS	0°	TBD	0°	113'-0"	-	-	-	-
	BLUE 1											
	YELLOW 2											
B-1 LITE 1700-2100	YELLOW 2	65'	RFS	APX17DMW_17DMWS	120°	TBD	0°	113'-0"	-	-	-	-
	YELLOW 3											
	GREEN 2											
B-2 UMITS 1700-2100	GREEN 2	65'	RFS	APXV1B_206517S_C	120°	TBD	0°	113'-0"	7/8" (C)	55'	LOWCAP DC/FIBER HYBRID 7/8"	75'-0"
	RED 2											
	RED 3											
B-3 GSM 1900	RED 2	65'	RFS	APX17DMW_17DMWS	120°	TBD	0°	113'-0"	-	-	-	-
	BLUE 2											
	YELLOW 3											
C-1 LITE 1700-2100	YELLOW 3	65'	RFS	APX17DMW_17DMWS	240°	TBD	0°	113'-0"	-	-	-	-
	YELLOW 1											
	YELLOW 2											
C-2 UMITS 1700-2100	GREEN 3	65'	RFS	APXV1B_206517S_C	240°	TBD	0°	113'-0"	7/8" (C)	145'	LOWCAP DC/FIBER HYBRID 7/8"	155'-0"
	RED 3											
	BLUE 3											
C-3 GSM 1900	RED 3	65'	RFS	APX17DMW_17DMWS	240°	TBD	0°	113'-0"	-	-	-	-
	BLUE 3											
	BLUE 1											
SPARE COAX TO REMAIN									(12)	7/8"		

SCALE: NOT TO SCALE

ANTENNA CONFIGURATION CHART

REVISIONS	DATE
1	5/14/12
2	5/14/12
3	5/14/12
4	5/14/12
5	5/14/12

ARIA SERVICES, INC.
 (281) 797-4387
 10000 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77046

...T-Mobile
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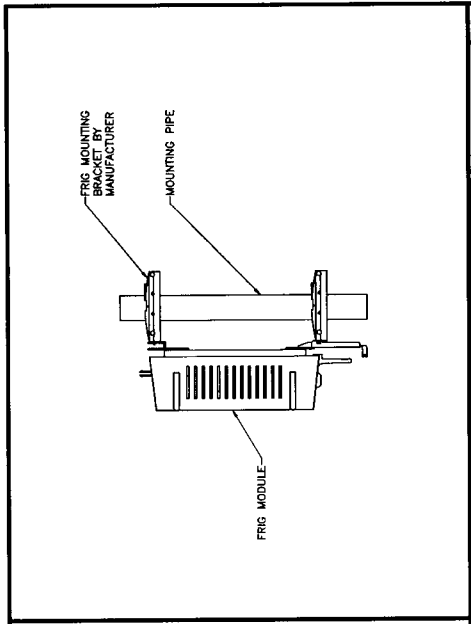
STRUCTURAL DETAILS

WILLIAM TRAVIS BUILDING
 ASFO194A
 308 S. 4TH
 RICHMOND, TX 77469

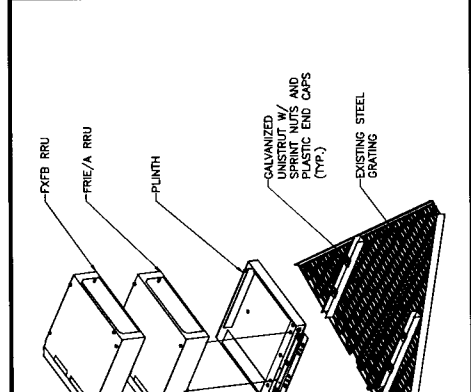
PROJECT NO.	040
CHECKED BY	JAK
DATE	MAY 6, 2012
SCALE	AS SHOWN
NOTED	
DRAWN BY	

S-2

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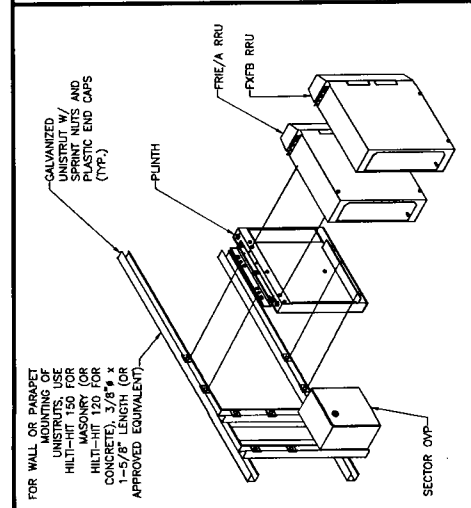


3 FRIG MOUNT ILLUSTRATION (SIDE VIEW) SCALE: NOT TO SCALE



2 TYPICAL HORIZONTAL RRU MOUNT SCALE: NOT TO SCALE

FOR MOUNTING OF UNISTRUT ON EXISTING STEEL GRATING, USE 3/8" A307 OR A325 THRU BOLTS, 1-5/8" LONG WITH 1/4" BACKING W/ PLASTIC END CAPS AND WASHERS (VERY BOLT LENGTH IN FIELD)



1 TYP. VERTICAL RRU MOUNT SCALE: NOT TO SCALE

FOR WALL OR PARAPET MOUNTING OF UNISTRUT ON HILT-HIT 150 FOR MASONRY (OR HILT-HIT 120 FOR CONCRETE), 3/8" x 1/2" LONG (OR APPROVED EQUIVALENT)

5 SCALE: NOT TO SCALE

4 NOT USED SCALE: NOT TO SCALE

NOT USED

REVISIONS	DATE
PERMITTING SHEET	5/4/12
FINAL CONSTRUCTION	5/4/12



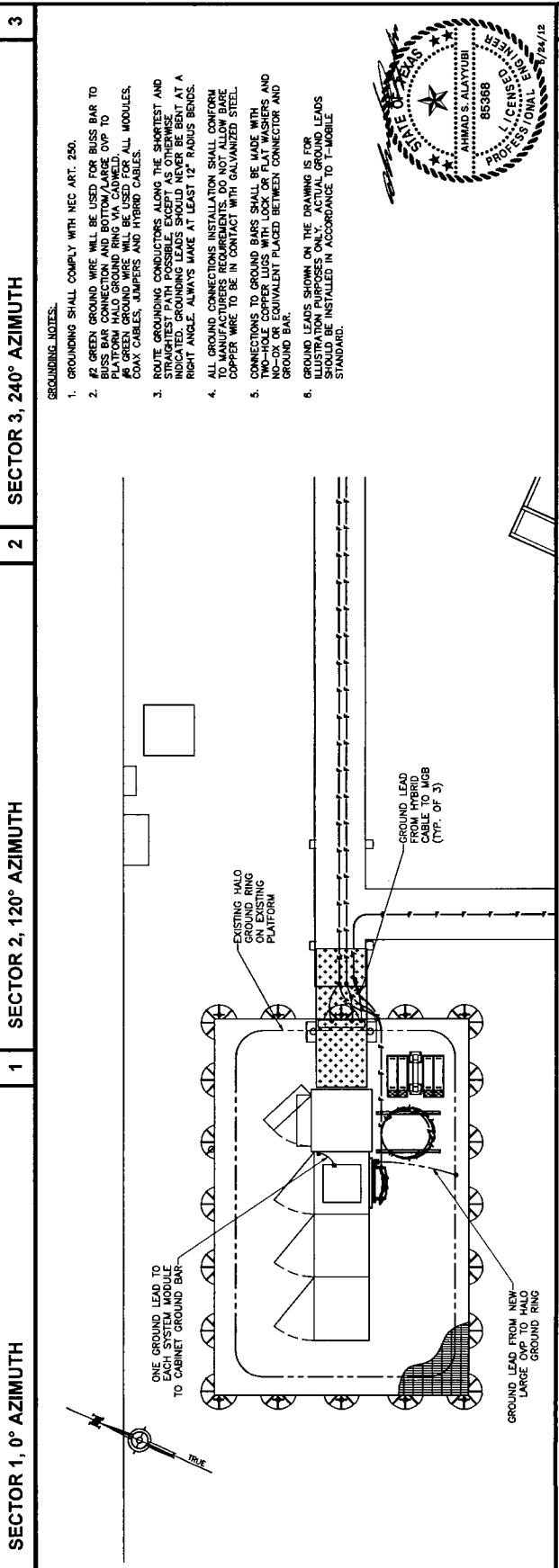
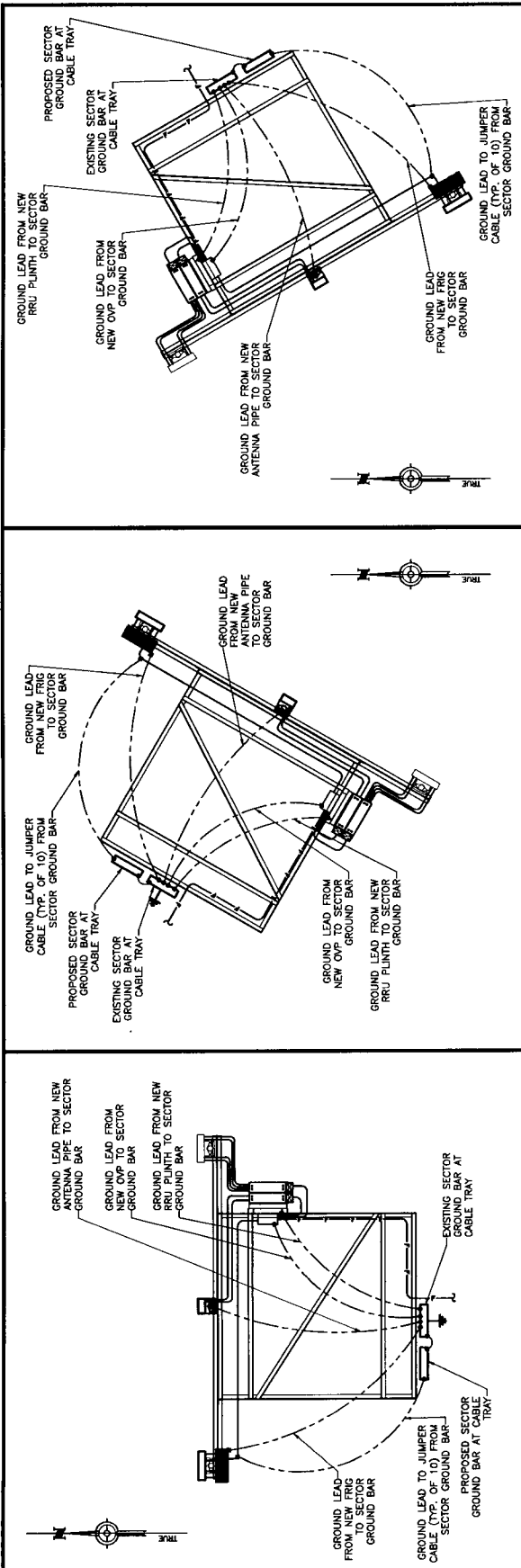
T-Mobile
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GROUNDING PLAN

WILLIAM TRAVIS BUILDING
A3F0194A
309 S. 47th
RICHMOND, TX 77469

DESIGN BY	DATE
CHECKED BY	REVISED BY
TY/AA	5/4/12
PROJECT NO.	85386
SCALE	1/4"=1'-0"
DATE	5/4/12

G-1



- GROUNDING NOTES:**
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
 - GREEN GROUND WIRE WILL BE USED FOR BUSS BAR TO BUSS BAR CONNECTION AND BOTTOM/LARGE OVP TO PLATFORM HALO GROUND RING VIA CABLED. ALL GROUNDING SHALL BE PERFORMED BY THE CONTRACTOR USING COPPER CABLES, JUMPERS AND HYBRID CABLES.
 - ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND MOST DIRECT PATH TO THE GROUNDING POINT AS INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT A RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. ALL GROUND CONNECTIONS SHALL CONFORM TO MANUFACTURERS REQUIREMENTS. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
 - CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE COPPER LUGS WITH LOCK OR FLAT WASHERS AND NO-OX OR EQUIVALENT PLACED BETWEEN CONNECTOR AND GROUND BAR.
 - GROUND LEADS SHOWN ON THE DRAWING IS FOR ILLUSTRATION PURPOSES ONLY. ACTUAL GROUND LEADS SHOULD BE INSTALLED IN ACCORDANCE TO T-MOBILE STANDARD.



EQUIPMENT GROUNDING PLAN

SCALE: 3/4"=1'-0"

T-Mobile®

NETWORK MODERNIZATION PROJECT

STRUCTURE TYPE: ROOFTOP
 LATITUDE: 29.58166666,
 LONGITUDE: -95.7609444

WILLIAM TRAVIS BUILDING

309 S. 4TH
 RICHMOND, TX 77469

SITE NUMBER
A3F0194A

SITE NAME

GENERAL NOTES

1. THE CONTRACTOR SHALL SUPERSEDE AND DIRECT ALL WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNOLOGIES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING JOB SITE CONDITIONS INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL SERVICE, AND OVERALL COORDINATION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND CONDITIONS OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO T-MOBILE BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, OR EQUIPMENT, SHALL BE THE TRAIT OF BUILDING OWNER OR OWNER'S REPRESENTATIVE, AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL REPLACE OR REPAIR, ANY FAULTY, IMPROPER, OR DEFECTIVE MATERIALS OR WORKMANSHIP OR ANY DAMAGE WHICH SHALL APPEAR WITHIN ONE YEAR OF COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.
6. THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND WASTE MATERIALS ON A REGULAR BASIS, AND SHALL EXERCISE STRICT CONTROL OVER JOB CLEANUP THROUGHOUT CONSTRUCTION, INCLUDING FINAL CLEANUP. UNCLE SAM'S CLEANUP CONTRACTORS SHALL BE LEFT IN A BRUSH CLEAN CONDITION AT THE END OF EACH DAY.
7. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL REPLACE ANY DAMAGED PROPERTY OF THE OWNER TO ORIGINAL CONDITION OR BETTER.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONNECTION WITH THE EXECUTION OF WORK.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SIGNAGE OF THE JOB IN ACCORDANCE WITH CHAPTER 44 OF THE U.S.G.C.
10. THE CONTRACTOR DURING CONSTRUCTION SHALL PROVIDE TEMPORARY WATER, POWER, AND TOILET FACILITIES AS REQUIRED BY THE CITY OR GOVERNING AGENCY.
11. ALL CONSTRUCTION WORK SHALL CONFORM TO THE U.S.G. AND ALL OTHER GOVERNING CODES, ALONG WITH THE GOVERNING RESTRICTIVE COOES.
12. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL LOCAL CODE REGULATIONS AND STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (OSHA) REQUIREMENTS REFER TO THE CODES SECTION OF THIS SHEET.
13. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO THE OWNER.
14. FIGURED DIMENSIONS HAVE PRECEDENCE OVER DRAWING SCALE AND DETAIL DRAWINGS HAVE PRECEDENCE OVER SCALE DIMENSIONS. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF-SITE, OR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAS BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.

PROJECT INFORMATION

SITE INFORMATION
 CONSTRUCTION TYPE: ANTENNA UPGRADE ON EXISTING UNMANNED TELECOMMUNICATION EQUIPMENT ON EXISTING ROOFTOP
 JURISDICTION: CITY OF RICHMOND
 ZONING: UNMANNED
 OCCUPANCY: UNMANNED

APPLICANT
 T-MOBILE USA, INC.
 2 GREENWAY PLAZA
 HOUSTON, TX 77046
 CONTACT: ANTHONY RANDO
 PHONE: (713) 407-3494

LANDLORD
 FORT BEND COUNTY
 CONTACT: L.C. WHITTEN 281-344-3990

ARCHITECTURE/ENGINEERING CONTRACTOR
 ARIA SERVICES, INC.
 TX FIRM REG# F-13104
 6602 HARBOR TOWN, UNIT #101
 HOUSTON, TX 77036
 CONTACT: TERRY FISHBAUM
 PHONE: (281) 797-1387

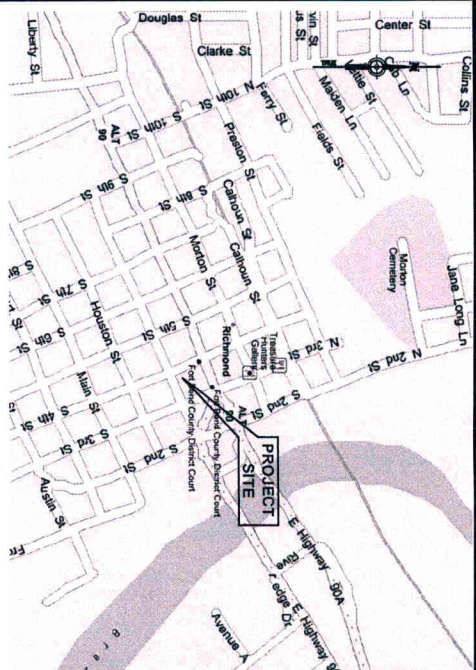
STRUCTURAL ENGINEER
 ARIA SERVICES, INC.
 7703 HARBOUR TOWN, UNIT 101
 HOUSTON, TX 77036
 CONTACT: AHMAD AL-AYYUBI, P.E.
 PHONE: (713) 398-5086

TEXAS ONE CALL
 CONTRACTORS TO CALL 48 HOURS BEFORE DIGGING
 PHONE: 1-800-245-4545
 INDEPENDENT LOCATORS TO BE USED ON ALL SITES

CODES

1. INTERNATIONAL BUILDING CODE, 2006 EDITION WITH CITY OF HOUSTON AMENDMENTS AS PER SEC. 101.2.
 2. NATIONAL ELECTRICAL CODE, 2011 EDITION AS ADOPTED BY LOCAL JURISDICTION.
 3. UNIFORM MECHANICAL CODE, 2006 EDITION AS ADOPTED BY LOCAL JURISDICTION.
 4. CITY OF HOUSTON COMMERCIAL ENERGY CONSERVATION CODE, 2008 EDITION (ASHRAE 90.1-2007) OR INTERNATIONAL ENERGY CONSERVATION CODE, 2009 EDITION OR ASHRAE ADDENDA 2008.
- DESIGN AND STRUCTURAL CALCULATION IS DONE BASED ON 110 MPH (3-SECOND GUST) /95 MPH FASTEST WIND SPEED/90 MPH BASIC WIND SPEED.

VICINITY MAP



DRIVING DIRECTIONS:

FROM THE SWITCH, TAKE BELTWAY 8 WEST ALL THE WAY AROUND AND TAKE US HWY 59 SOUTH, CONTINUE FOR ONE MILE OR TWO AND EXIT AND GO WEST ON US HWY 90 A ALL THE WAY TO DOWNTOWN RICHMOND, TX. SITE IS ON TOP OF THE WILLIAM TRAVIS BUILDING IN THE TOWN SQUARE ON THE COURTHOUSE.

SHEET INDEX

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A-4 EXISTING ANTENNA LAYOUT
A-5 PROPOSED ANTENNA LAYOUT
A-6 NSN CONFIGURATION DIAGRAM
A-7 EQUIPMENT SPECIFICATION
A-8 ANTENNA CONFIGURATION CHART
A-9 CABLE LAYOUT AND NOTES
S-1 STRUCTURAL DETAILS
S-2 STRUCTURAL DETAILS
G-1 GROUNDING PLAN
G-2 GROUNDING DETAILS

* THESE DRAWINGS ARE SCALED FOR 24"x36" SHEETS

SITE PHOTO



APPROVALS

PROPERTY OWNER OR REP. *[Signature]* DATE: 7-24-2012

LAND USE PLANNER _____ DATE _____

OPERATIONS _____ DATE _____

RF ENGINEER _____ DATE _____

ZONING AND REAL ESTATE _____ DATE _____

CONSTRUCTION MANAGER _____ DATE _____

PE SEAL



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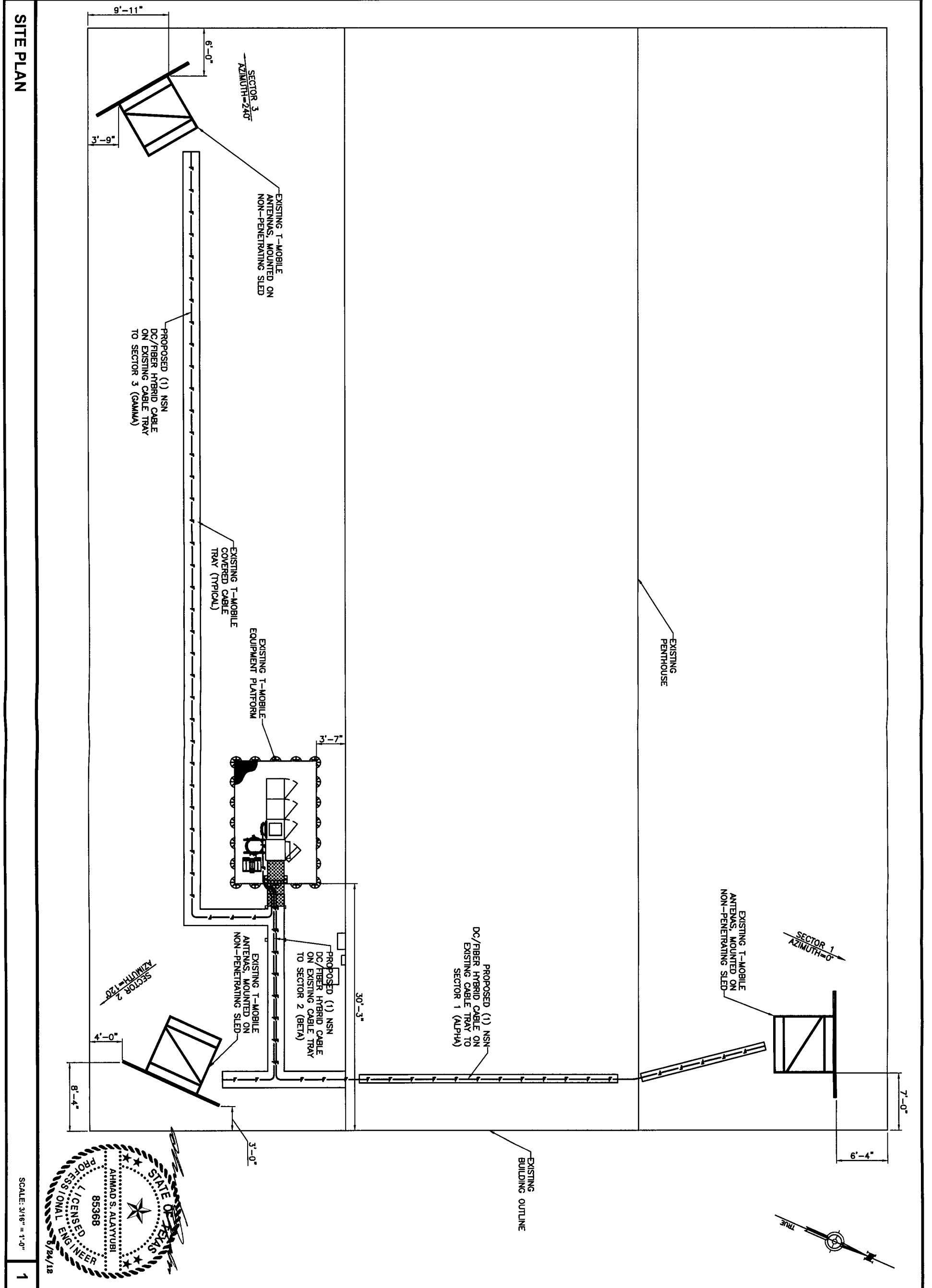
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FIG. SCALE:	1:1
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SITE PLAN

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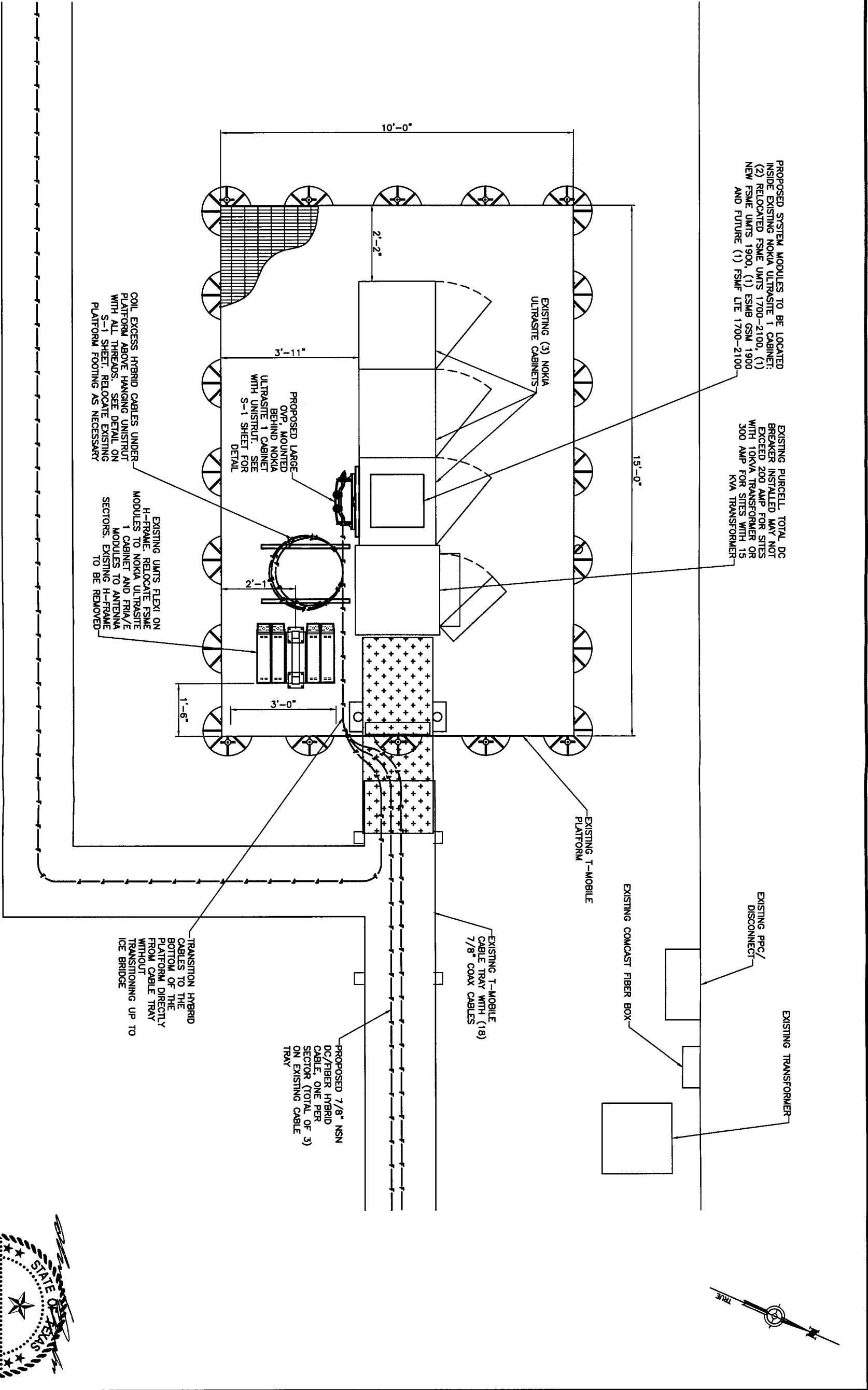
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ENLARGED SITE PLAN



SCALE: 3/4" = 1'-0"

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ENLARGED SITE PLAN

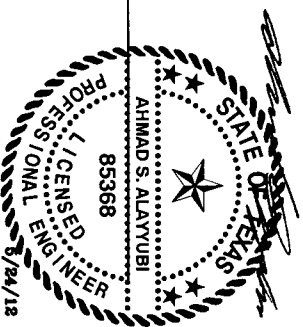
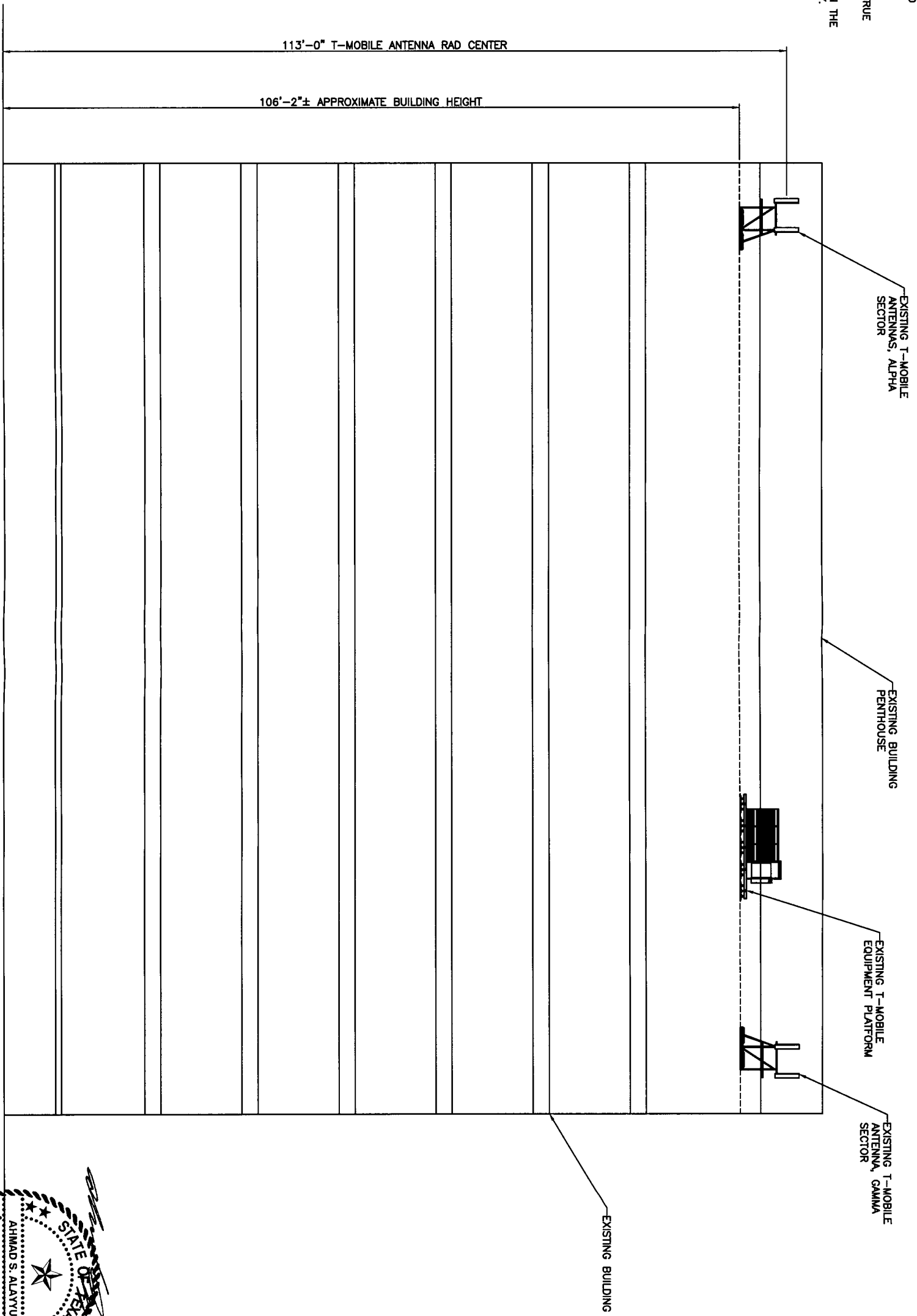
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 RICHMOND, TX 77469

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 PLOT SCALE: 1:1
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SHEET NO. **A-2**

- NOTES:
1. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
 2. CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH T-MOBILE CM.
 3. CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF MICROWAVE DISHES WITH T-MOBILE PM. (WHEN APPLICABLE)
 4. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
 5. SOME OF THE EXISTING STRUCTURES ON THE BUILDING ARE NOT SHOWN FOR CLARITY.

BUILDING ELEVATION



SCALE: NOT TO SCALE

1

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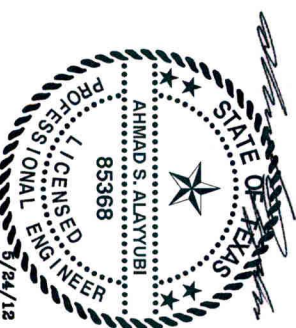
ELEVATION

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A-3

<p>SECTOR 1</p> <p>EXISTING TMA'S TO BE REMOVED-</p> <p>EXISTING TMA TO BE REMOVED-</p> <p>4.16.2012 13:26</p> <p>EXISTING ANTENNA TO BE REPLACED-</p> <p>EXISTING ANTENNA TO REMAIN</p>	<p>1</p>	<p>SECTOR 2</p> <p>EXISTING TMA'S TO BE REMOVED-</p> <p>EXISTING TMA TO BE REMOVED-</p> <p>4.16.2012 13:34</p> <p>EXISTING ANTENNA TO BE REPLACED-</p> <p>EXISTING ANTENNA TO REMAIN</p>	<p>2</p>	<p>SECTOR 3</p> <p>EXISTING TMA'S TO BE REMOVED-</p> <p>EXISTING TMA TO BE REMOVED-</p> <p>4.16.2012 13:39</p> <p>EXISTING ANTENNA TO BE REPLACED-</p> <p>EXISTING ANTENNA TO REMAIN</p>	<p>3</p>	<p>NOT USED</p> <p>NOTES: ALL DOWN TILT AND AZIMUTHS TO BE VERIFIED BY RF SITE DATA SHEET. SEE T-MOBILE PM. FOR INFORMATION</p> <p>SCALE: NOT TO SCALE</p> <p>4</p>
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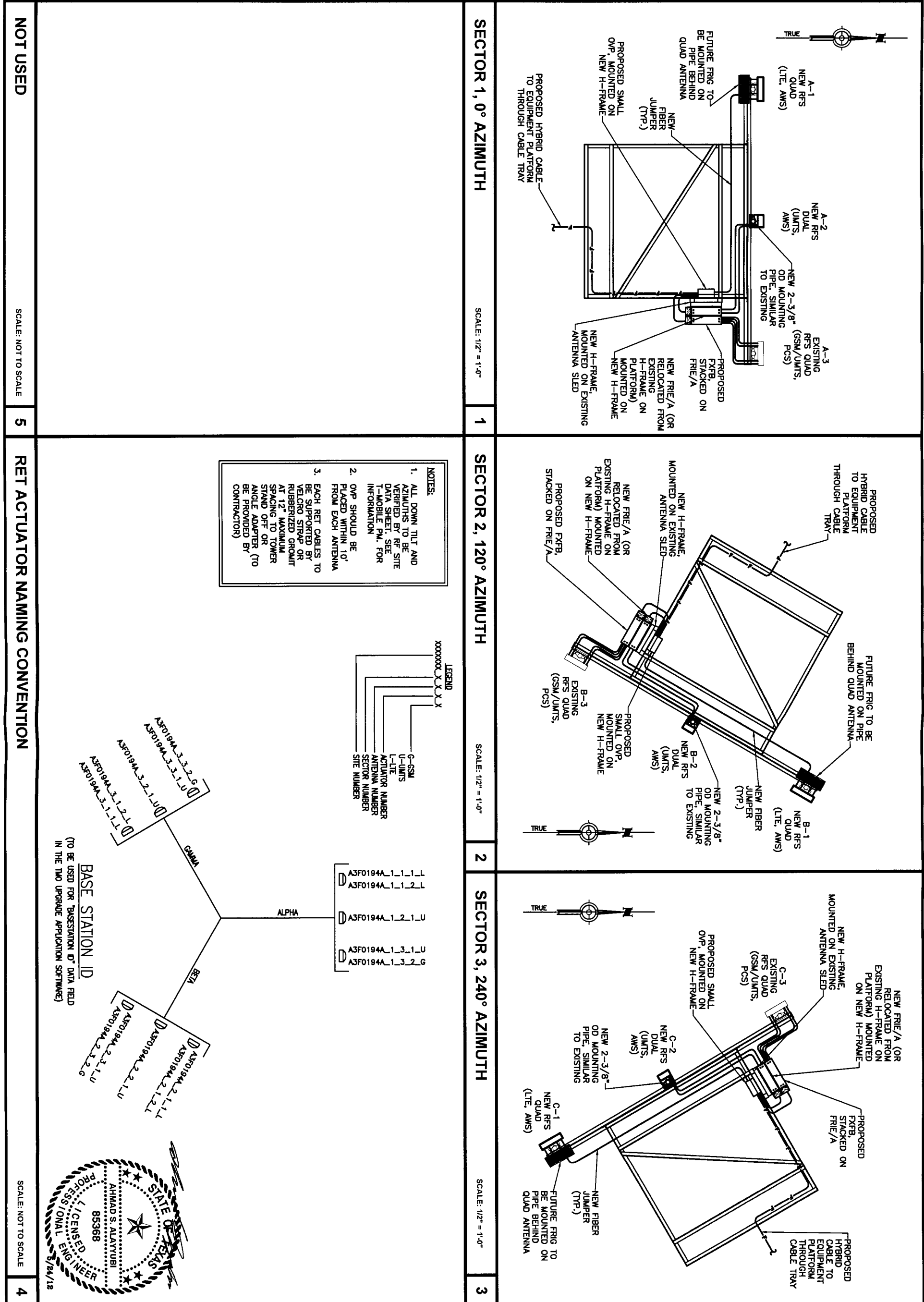
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SHEET NO. **A-4**




NOT USED


5 RETACTUATOR NAMING CONVENTION

4 SCALE: NOT TO SCALE

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1	5/9/12	ISSUED FOR CONSTRUCTION
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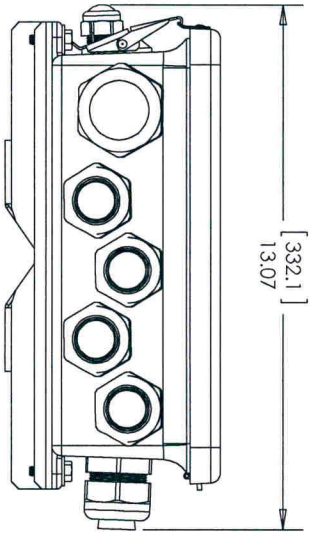
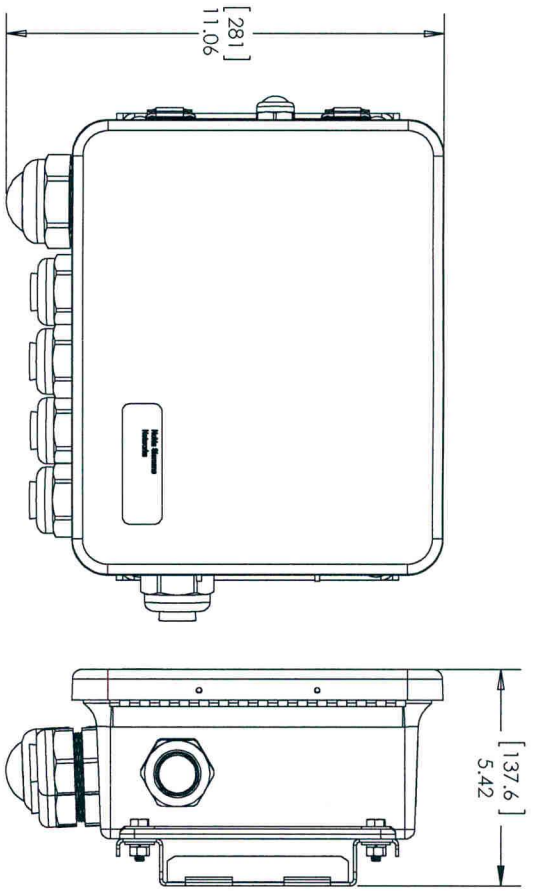
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PROPOSED ANTENNA PLAN

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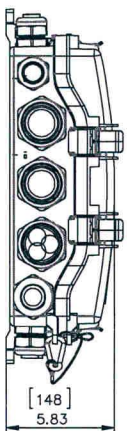
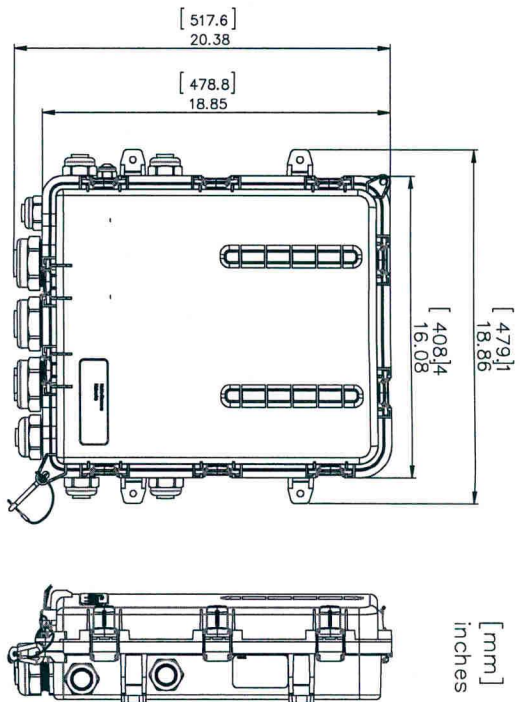
A-5



[mm]
inches

DC SURGE PROTECTION FOR RRH/RFM (LOW-CAPACITY JUNCTION BOX)
 ASU93337TP01 (RNSDC-2635-PF-48)
 OVERVOLTAGE PROTECTION & FIBER MANAGEMENT JUNCTION BOX

SMALL OVP (RAYCAP RNSDC-2635-PF-48)



[mm]
inches

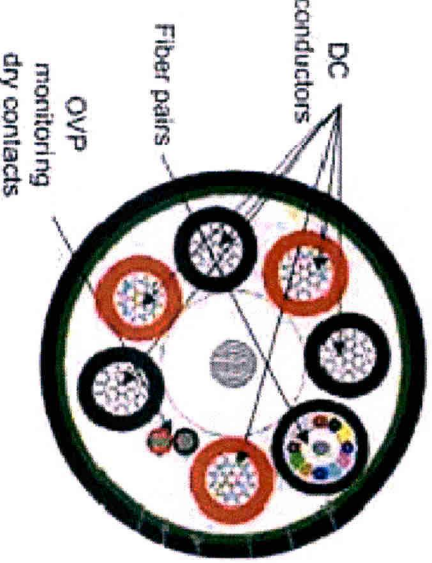
TO ORDER GLAND KITS FOR COAX REUSE :
 NSN ORDER NUMBER RAYCAP ORDER NUMBER GLAND KIT - INSTALLATION TYPE
 ASU93361TP01 (7771-RFP-CX-STG-KIT) ROOFTOP COAX REUSE (STINGER)
 FOR USE WITH NSN STANDARD 60 KA COVP
 ORDER ONE KIT PER NSN STANDARD COVP AND 3 ROOFTOP SECTOR COVP PAIR

DC SURGE PROTECTION FOR RRH/RFM
 (HIGH-CAPACITY JUNCTION BOX)
 ASU93381TP01 (RNSDC-7771-PF-48)
 OVERVOLTAGE PROTECTION & FIBER MANAGEMENT JUNCTION BOX

LARGE OVP (RAYCAP RNSDC-7771-PF-48)

- LOW CAPACITY (7/8" OD, 0.90 LBS/FT)
- 6 x 6 AWG CONDUCTORS
 - 10 FIBER PAIRS
 - FOR CABLE RUNS UP TO 300'-0"
 - ON ROOFTOP APPLICATION
 - MINIMUM BENDING RADIUS IS 15"

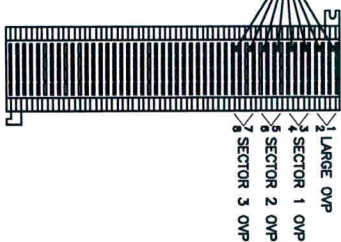
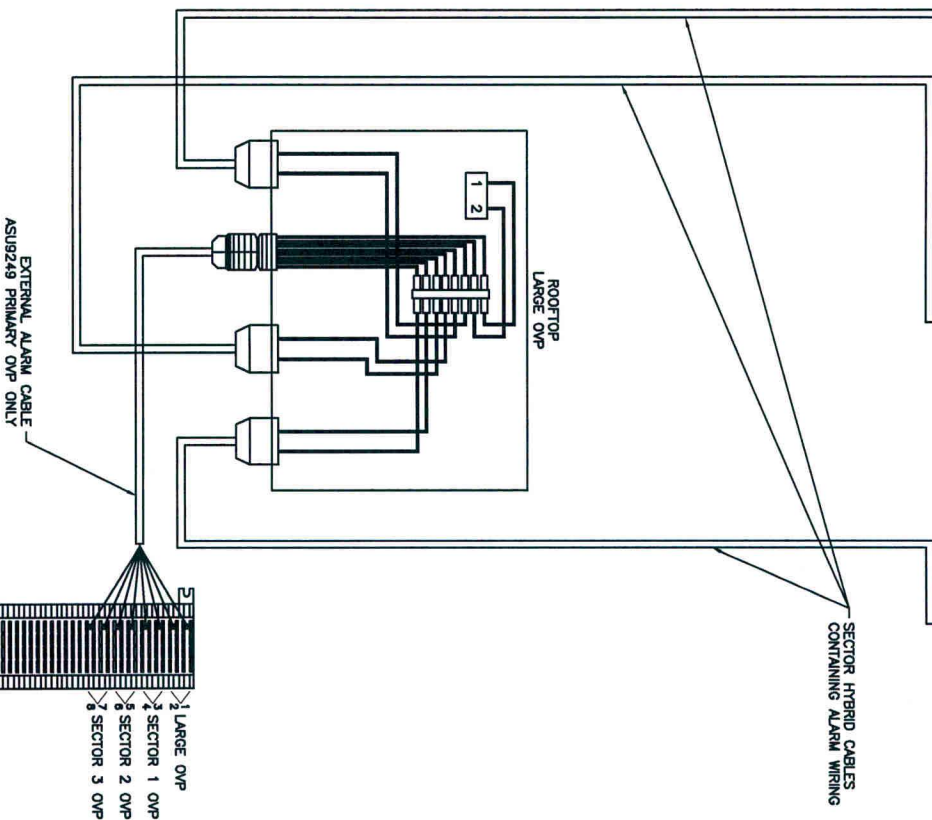
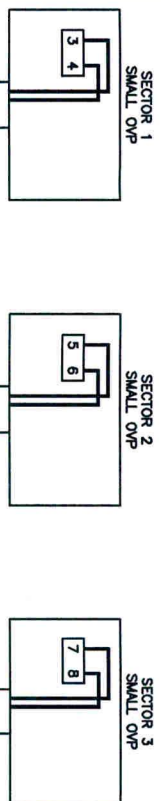
DC/FIBER HYBRID CABLES AND JUMPERS OR RUBBERIZED GROMMET AT 12" MAXIMUM SPACING TO TOWER STAND OFF, ANGLE ADAPTER OR ANTENNA SECTOR FRAME. SUPPORT MATERIALS TO BE PROVIDED BY CONTRACTOR



HYBRID CABLE SPECIFICATIONS

SCALE: NOT TO SCALE

3



OVP ALARM WIRING SCHEMATIC

SCALE: NOT TO SCALE

4



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EQUIPMENT SPECIFICATION

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CHECKED BY	
DATE	
DATE	MAY 6, 2012
PLOT SCALE	1:1
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A-7

ANTENNA CONFIGURATION CHART

ANTENNA NUMBER	COLOR CODE (SEE NOTE 3, A-9)	BEAM WIDTH	ANTENNA VENDOR	MODEL NO.	AZIMUTH	ELECTRICAL DOWN TILT	MECHANICAL DOWN TILT	HEIGHT TO THE CENTER OF ANTENNA FROM GROUND LEVEL	TYPE	COAXIAL FEEDER		HYBRID CABLE FEEDER	
										SIZE	LENGTH	TYPE	LENGTH
A-1 LTE 1700-2100	YELLOW 1	65'	RFS	APX17DWM_17DWS	0°	TBD	0°	113'-0"	AWS	-	-	-	-
	YELLOW 1									-	-	-	-
	YELLOW 1									-	-	-	-
A-2 UMTS 1700-2100	GREEN 1	65'	RFS	APXV18_206517S_C	0°	TBD	0°	113'-0"	AWS	7/8"	150'	LOWCAP DC/FIBER HYBRID 7/8"	130'-0"
	GREEN 1									-	-	-	-
	GREEN 1									-	-	-	-
A-3 GSM 1900	RED 1	65'	RFS	APX17DWM_17DWS	0°	TBD	0°	113'-0"	PCS	7/8"	150'	-	-
	RED 1									-	-	-	-
	RED 1									-	-	-	-
A-3 UMTS 1900	BLUE 1	65'	RFS	APX17DWM_17DWS	120°	TBD	0°	113'-0"	AWS	-	-	-	-
	BLUE 1									-	-	-	-
	BLUE 1									-	-	-	-
B-1 LTE 1700-2100	YELLOW 2	65'	RFS	APX17DWM_17DWS	120°	TBD	0°	113'-0"	AWS	-	-	-	-
	YELLOW 2									-	-	-	-
	YELLOW 2									-	-	-	-
B-2 UMTS 1700-2100	GREEN 2	65'	RFS	APXV18_206517S_C	120°	TBD	0°	113'-0"	AWS	7/8"	55'	LOWCAP DC/FIBER HYBRID 7/8"	75'-0"
	GREEN 2									-	-	-	-
	GREEN 2									-	-	-	-
B-3 GSM 1900	RED 2	65'	RFS	APX17DWM_17DWS	120°	TBD	0°	113'-0"	PCS	7/8"	55'	-	-
	RED 2									-	-	-	-
	RED 2									-	-	-	-
B-3 UMTS 1900	BLUE 2	65'	RFS	APX17DWM_17DWS	120°	TBD	0°	113'-0"	AWS	-	-	-	-
	BLUE 2									-	-	-	-
	BLUE 2									-	-	-	-
C-1 LTE 1700-2100	YELLOW 3	65'	RFS	APX17DWM_17DWS	240°	TBD	0°	113'-0"	AWS	-	-	-	-
	YELLOW 3									-	-	-	-
	YELLOW 3									-	-	-	-
C-2 UMTS 1700-2100	GREEN 3	65'	RFS	APXV18_206517S_C	240°	TBD	0°	113'-0"	AWS	7/8"	145'	LOWCAP DC/FIBER HYBRID 7/8"	155'-0"
	GREEN 3									-	-	-	-
	GREEN 3									-	-	-	-
C-3 GSM 1900	RED 3	65'	RFS	APX17DWM_17DWS	240°	TBD	0°	113'-0"	PCS	7/8"	145'	-	-
	RED 3									-	-	-	-
	RED 3									-	-	-	-
C-3 UMTS 1900	BLUE 3	65'	RFS	APX17DWM_17DWS	240°	TBD	0°	113'-0"	AWS	-	-	-	-
	BLUE 3									-	-	-	-
	BLUE 3									-	-	-	-
SPARE COAX TO REMAIN										(12) 7/8"			

ANTENNA KEY

NOTE:
ALL FIBER RUNS TO BE CONTAINED IN A SINGLE NSN 7/8" OR 1-1/4" HYBRID DC/FIBER CABLE FROM LARGE OVP TO SMALL OVP. (COLOR CODE COAX JUMPERS ONLY)

(*) EXISTING COAX CABLES TO BE REUSED FOR LMU (E911). EXISTING COLOR CODING SCHEME ON MAIN COAX CABLE WILL BE REUSED AND AS FOLLOWS:
ALPHA, 1R 2R
BETA, 1Y 2Y
GAMMA, 1B 2B
DELTA, 1W 2W



SCALE: NOT TO SCALE

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ANTENNA CONFIGURATION CHART
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 308 S. 47E
 RICHMOND, TX 77469

A-8

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 CHECKED BY: T/A
 DATE: MAY 9, 2012
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ANTENNA NOTES:

1. ANTENNA CONTRACTOR SHALL ENSURE THAT ALL ANTENNA MOUNTING PIPES ARE PLUMB.
2. COAXIAL FEEDER AND FIBER LENGTHS INDICATED ARE APPROXIMATE.
3. ANTENNA COAXIAL FEEDERS AND ANTENNA JUMPERS SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS.
4. LINES 1U AND 2U TO HAVE TMA MOUNTED ON PLATFORM PIPE IN BETWEEN ANTENNAS AND CLOSER TO MIDDLE ANTENNA AT EACH SECTOR (WHERE APPLICABLE).
5. EXISTING UNUSED PCS PORT(S) OF EXISTING TMA'S SHALL BE CAPPED AND WEATHER PROOFED BY CONTRACTOR (WHERE APPLICABLE).

MINIMUM BEND RADIUS FOR JUMPERS AND CABLES:

EC2-50	(3/8" STANDARD)	= 1.6"
EC4-50-HF	(1/2" HIFLEX)	= 1.2"
EC4-50	(1/2" STANDARD)	= 2.8"
EC5-50A	(7/8" STANDARD)	= 4"
EC7-50A	(1-5/8" STANDARD)	= 8"

6. CONTRACTOR SHALL RECORD THE SERIAL NUMBER, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND FURNISH THE INFORMATION TO T-MOBILE. THE SAME WILL BE DONE ON EACH ANTENNA AS WELL.
7. ANTENNA CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM/VALIDATE ANTENNA CENTERLINE (ACL) HEIGHT. CONTRACTOR SHALL SUBMIT A COMPLETED HEIGHT VERIFICATION FORM TO THE CONSTRUCTION MANAGER.
8. ALL FIBER RUNS TO BE CONTAINED IN A SINGLE NSN 7/8" OR 1-1/4" HYBRID DC/FIBER CABLE FROM LARGE OVP TO SMALL OVP. (COLOR CODE COAX JUMPERS ONLY)

NOTES:

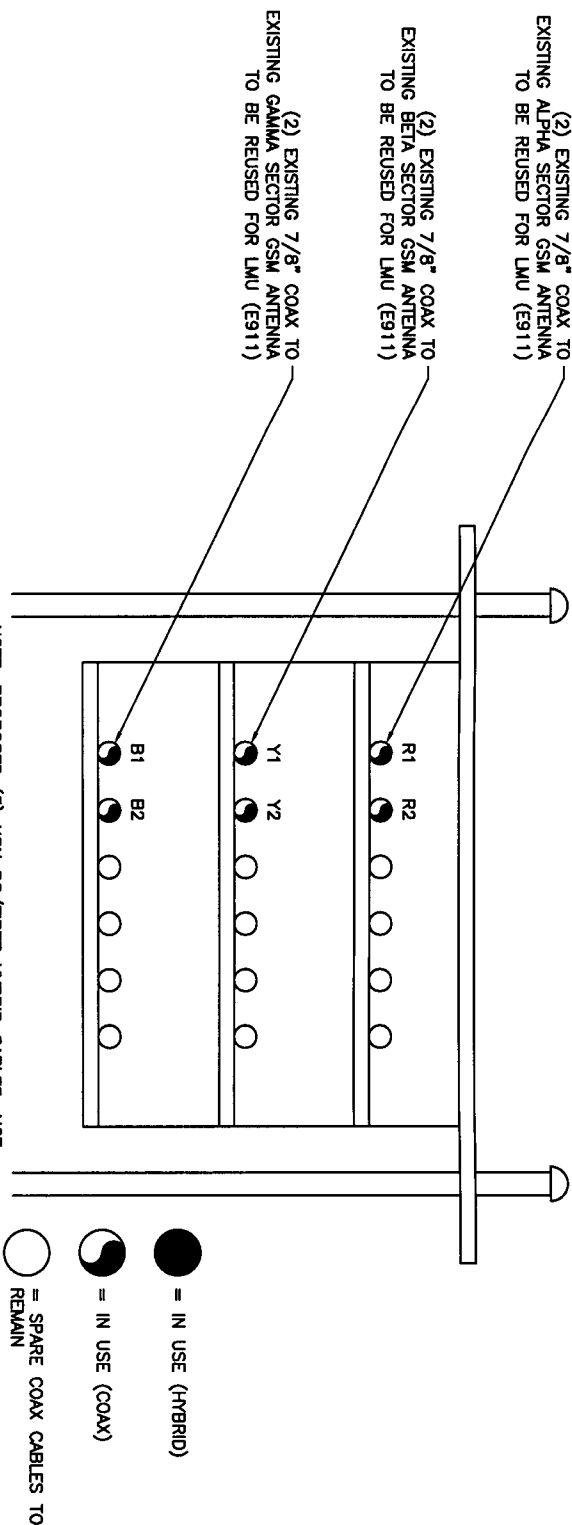
1. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
2. CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH T-MOBILE.
3. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

COAX CABLE IDENTification

CONTRACTOR MUST PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PER THE FOLLOWING INSTRUCTIONS:

1. LABEL NEW AND EXISTING EUPEN COAXIAL CABLES WITH A 3" BAND OF VINYL COLOR TAPE AT (3) LOCATIONS: (1) 12"-18" BEHIND TOP CONNECTOR, (1) AT BOTTOM - WHERE COAX EXITS TOWER, AND (1) 12"-18" BEHIND BOTTOM CONNECTOR.
 2. LABEL NEW AND EXISTING 1/2" STANDARD FOAM JUMPERS (TOP AND BOTTOM) WITH A 1" BAND OF VINYL COLORED TAPE AT EACH END OF JUMPER WITHIN 6" OF CONNECTOR.
 3. SECTOR IDENTIFICATION: NORMALLY A SITE WILL HAVE UP TO THREE SECTORS. SECTORS SHALL BE DESIGNATED IN A CLOCKWISE MANNER. THE ALPHA SECTOR IS CLOSEST TO 0 DEGREES (NORTH); THE BETA AND GAMMA SECTORS FOLLOW CLOCKWISE IN SEQUENCE.
- EXISTING COAX CABLES COLOR CODING:
- ALPHA SECTOR - RED
 - BETA SECTOR - YELLOW
 - GAMMA SECTOR - BLUE
 - DELTA SECTOR - WHITE
- UMTS 1700/2100 JUMPERS SHALL BE NOTED WITH GREEN BAND WITH THE BAND QUANTITY TO MATCH THE SECTOR NUMBER.
- LTE 1700/2100 JUMPERS SHALL BE NOTED WITH YELLOW BAND WITH THE BAND QUANTITY TO MATCH THE SECTOR NUMBER.
- GSM 1900 JUMPERS SHALL BE NOTED WITH RED BAND WITH THE BAND QUANTITY TO MATCH THE SECTOR NUMBER.
- UMTS 1900 JUMPERS SHALL BE NOTED WITH BLUE BAND WITH THE BAND QUANTITY TO MATCH THE SECTOR NUMBER.

CABLE LAYOUT AND NOTES



ANTENNA SECTOR	VENDOR	EQUIPMENT	MODEL NO.	EQUIPMENT ELEVATION	QTY.
ALPHA	NSN	RRU	(N) FRIE/A	109'-0"	1
	NSN	RRU	(N) FXFB		1
	NSN	RRU	(N) FRIG		1
	NSN	OVP	(N) SMALL		1
BETA	NSN	RRU	(N) FRIE/A	109'-0"	1
	NSN	RRU	(N) FXFB		1
	NSN	RRU	(N) FRIG		1
	NSN	OVP	(N) SMALL		1
GAMMA	NSN	RRU	(N) FRIE/A	109'-0"	1
	NSN	RRU	(N) FXFB		1
	NSN	RRU	(N) FRIG		1
	NSN	OVP	(N) SMALL		1
EQUIPMENT PLATFORM	NSN	SYSTEM MODULE	(N) FSME	109'-0"	1
	NSN	SYSTEM MODULE	(E) FSME		2
	NSN	SYSTEM MODULE	(N) ESNB		1
	NSN	SYSTEM MODULE	(F) FSNF		1
	NSN	OVP	(N) LARGE		1



SCALE: NOT TO SCALE

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1	PERMITS ONLY	5/9/12
2	FINAL CONSTRUCTION	5/14/12

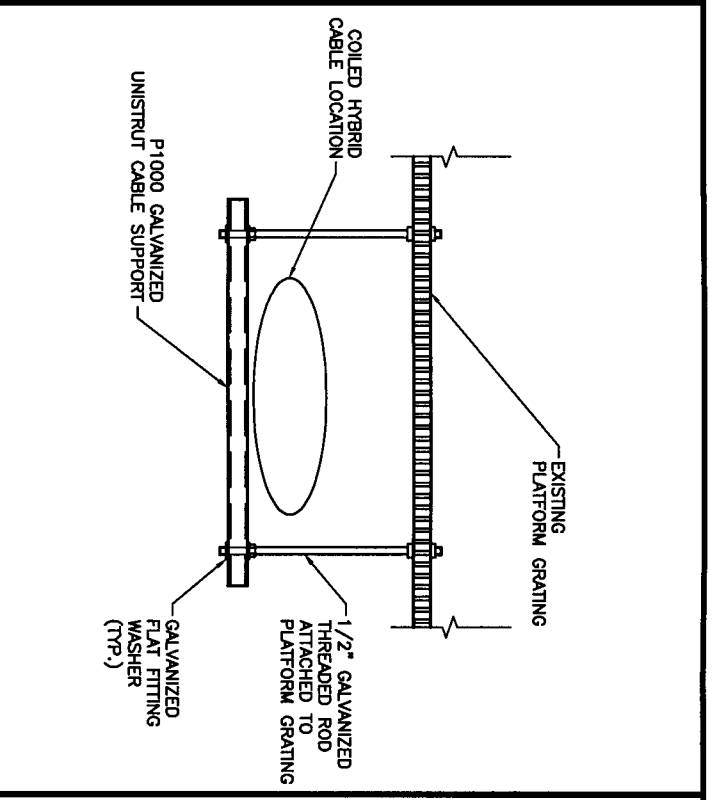
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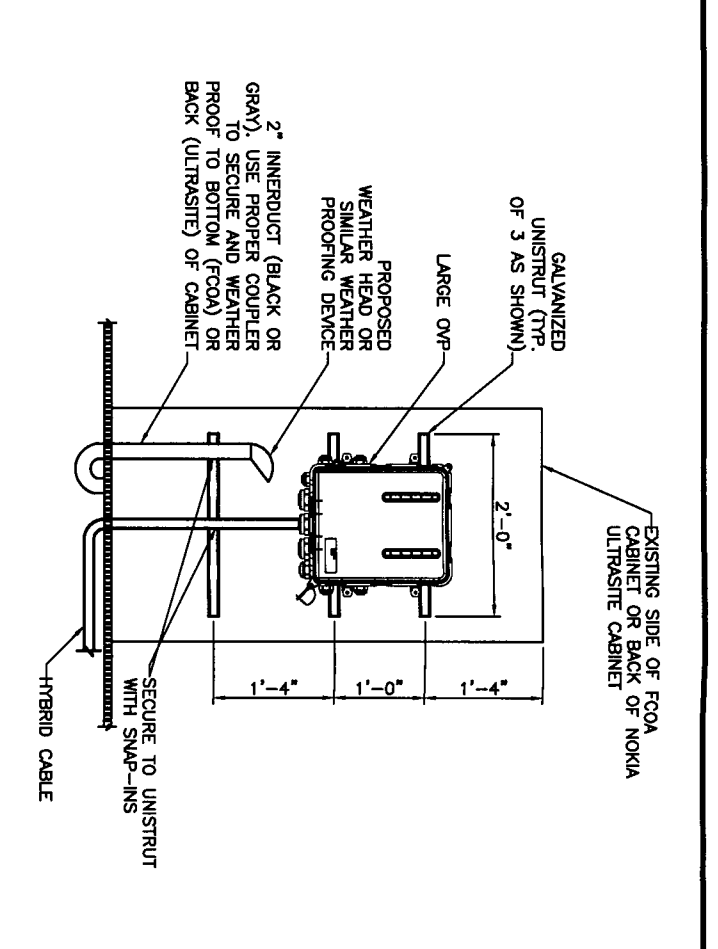
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 PLOT SCALE: 1:1
 NOT USED: _____
 SHEET NO. **A-9**



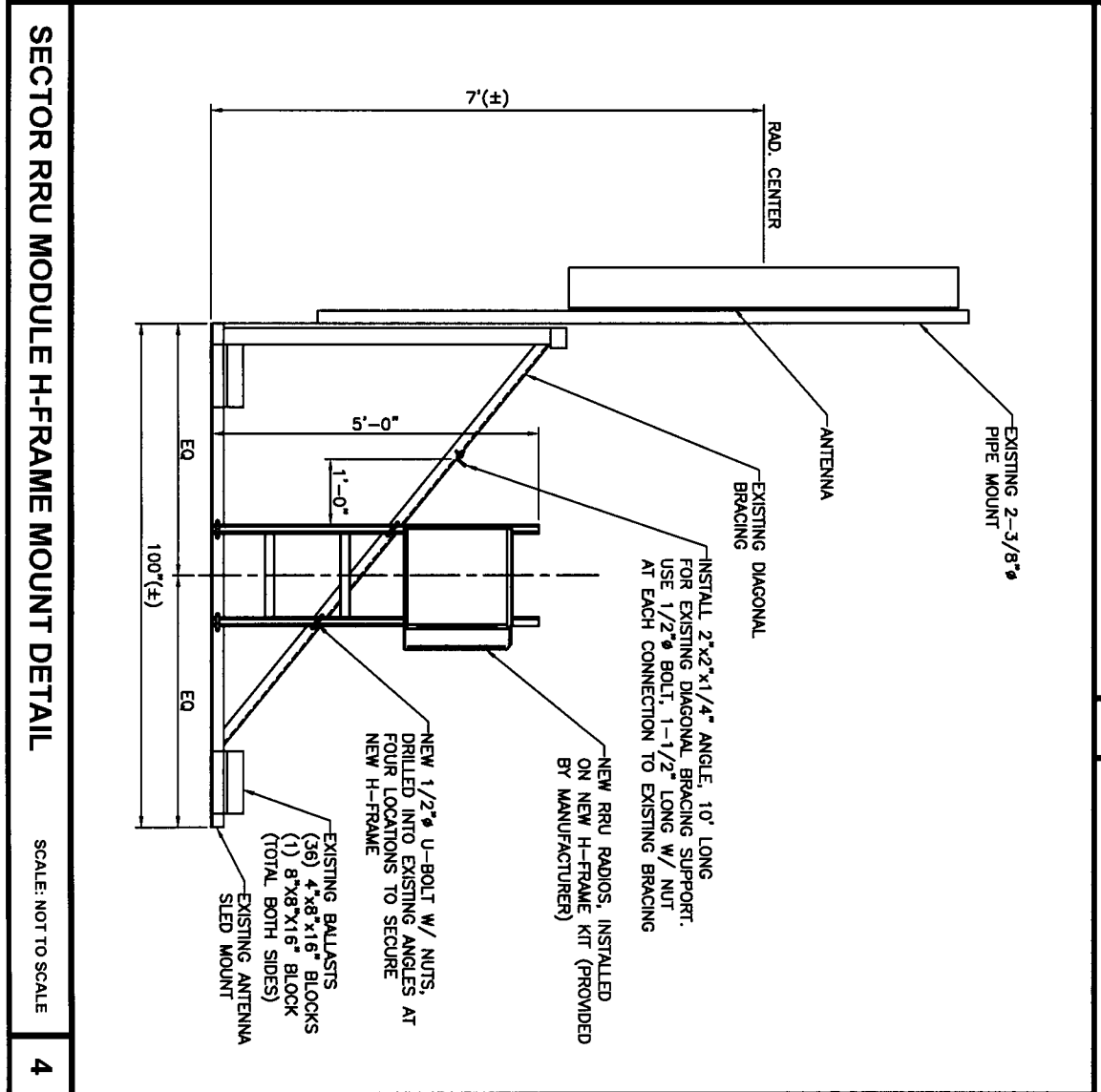
HYBRID CABLE SUPPORT SCALE: NOT TO SCALE **1**



LARGE OVP SUPPORT DETAIL SCALE: NOT TO SCALE **2**

- STRUCTURAL NOTES**
1. ALL STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO ASTM 36, GALV. UNLESS NOTED OTHERWISE.
 2. FABRICATION AND ERECTION OF STRUCTURAL STEEL TO BE IN ACCORDANCE WITH AISC "MANUAL OF STEEL CONSTRUCTION" NINTH EDITION.
 3. TOUCH UP FIELD WELDS WITH ZINC-RICH PAINT.
 4. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 1/2" MIN. DIAMETER BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS AND WASHERS SHALL BE GALV. UNLESS NOTED OTHERWISE.
 5. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL APPLY ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN ANY WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF MOUNTED EQUIPMENT.
 6. THE STRUCTURAL COMPONENTS OF THIS PROJECT SITE/FACILITY ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT, UNLESS NOTED OTHERWISE.
 7. ALL STEEL SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 123. ALL BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM 153.
 8. APPLY THREE (3) COATS OF COLD GALVANIZING AFTER ALL FIELD DRILLING INTO EXISTING BEAMS.
 9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE FABRICATION, AND EXISTING FIELD CONDITIONS TO DETERMINE FEASIBILITY OF ALL DETAILS SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH INSTALLATION. THE ENGINEER OF RECORD SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES IN ACTUAL FIELD CONDITION AND THE DESIGN DETAILS.
 10. ALL HOLES ARE 1/16" + BOLT DIAMETER.
 11. CONTRACTOR SHALL LOCATE THE EXISTING REBARS BEFORE DRILLING HOLES IN THE EXISTING CONCRETE SLAB.
 12. PROVIDE WATERPROOF COATING AT DRILLING HOLE LOCATION ON THE CONCRETE SLAB.
 13. ALL NEW HOLES AND/OR OPENING SHALL BE WEATHERPROOFED BY CONTRACTORS.

STRUCTURAL NOTES SCALE: NOT TO SCALE **3**

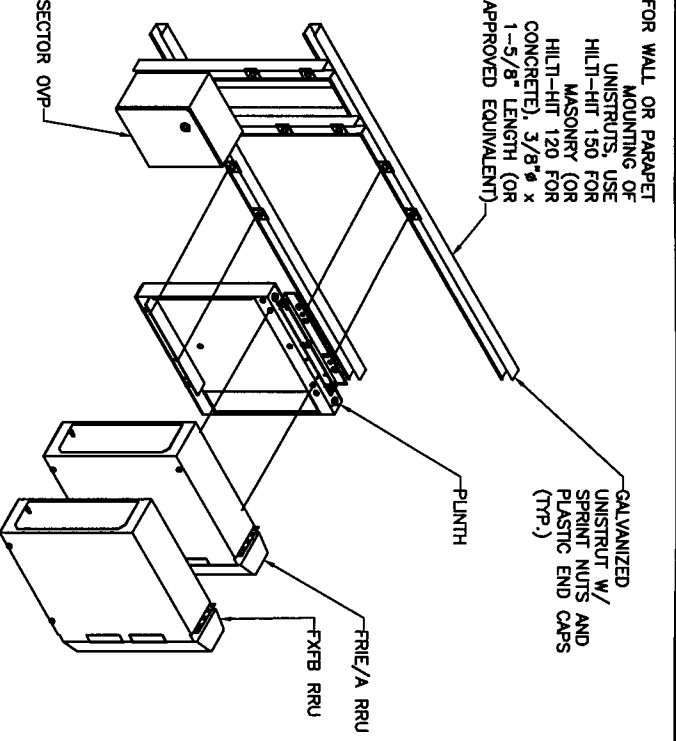
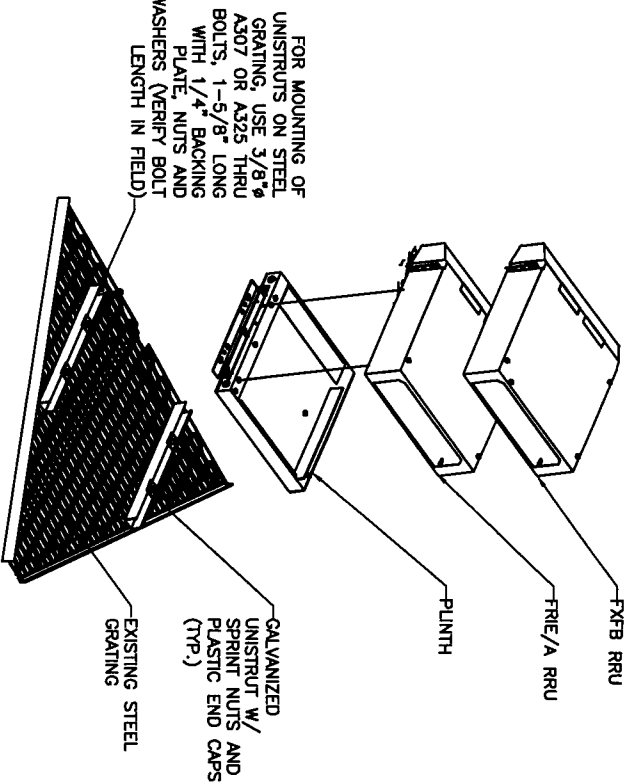
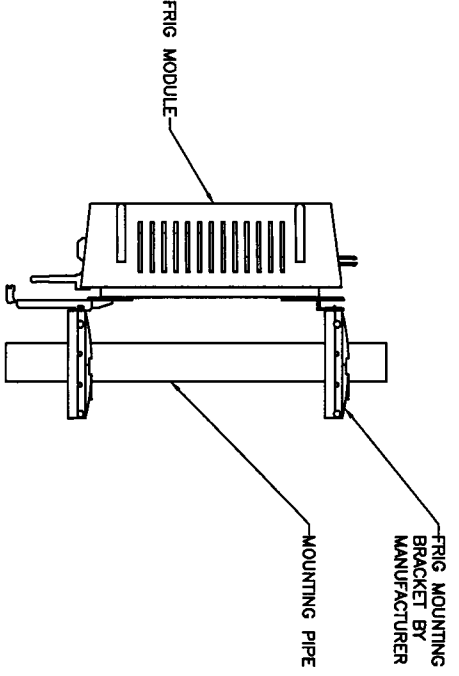


SECTOR RRU MODULE H-FRAME MOUNT DETAIL SCALE: NOT TO SCALE **4**

NOT USED SCALE: NOT TO SCALE **5**



<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PERMITTING ONLY</td> <td>8/8/12</td> </tr> <tr> <td>2</td> <td>FINAL CONSTRUCTION</td> <td>8/14/12</td> </tr> </tbody> </table>	NO.	DESCRIPTION	DATE	1	PERMITTING ONLY	8/8/12	2	FINAL CONSTRUCTION	8/14/12	<p>Get More From Life</p> <p>T-MOBILE USA, INC. 2 GREENWAY PLAZA SUITE 1100 HOUSTON, TX 77046</p>	<p>ARIA SERVICES, INC. (281) 797-4387 WWW.ARIASERVICES.COM TX FIRM REG# F-13104</p>	<p>STRUCTURAL DETAILS</p> <p>WILLIAM TRAVIS BUILDING A3F0194A 508 S. 47TH RICHMOND, TX 77469</p>	<p>S-1</p>
NO.	DESCRIPTION	DATE											
1	PERMITTING ONLY	8/8/12											
2	FINAL CONSTRUCTION	8/14/12											

<p>NOT USED</p> <p>SCALE: NOT TO SCALE</p>	<p>1</p> <p>TYP. VERTICAL RRU MOUNT</p> <p>SCALE: NOT TO SCALE</p> 	<p>2</p> <p>TYPICAL HORIZONTAL RRU MOUNT</p> <p>SCALE: NOT TO SCALE</p> 
<p>4</p> <p>NOT USED</p> <p>SCALE: NOT TO SCALE</p>	<p>3</p> <p>FRIG MOUNT ILLUSTRATION (SIDE VIEW)</p> <p>SCALE: NOT TO SCALE</p> 	<p>5</p> <p>NOT USED</p> <p>SCALE: NOT TO SCALE</p>



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REVISIONS	DATE
1	5/9/12
2	9/14/12

WILLIAM TRAVIS
BUILDING
A3F0194A
 300 S. 4TH
 RICHMOND, TX 77469

STRUCTURAL
DETAILS


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 2 GREENWAY PLAZA
 SUITE 1100
 HOUSTON, TX 77046


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 TX FIRM REG# F-13104

DRAWN BY	GAD
CHECKED BY	IT/JA
DATE	MAY 6, 2012
PLOT SCALE	1:1
NOT USED	
SHEET NO.	S-2

<h3 style="text-align: center;">COAX AND SURGE ARRESTOR GROUNDING</h3> <p style="text-align: center;">SCALE: N.T.S.</p> <p>NOTE:</p> <ol style="list-style-type: none"> ALL GROUND LEADS TO RUN IN "DOWNSTREAM" DIRECTION FROM ANTENNA TOWARDS EQUIPMENT) ALL GROUND KITS TO BE INSTALLED APPROX. 18" MIN. FROM CONNECTIONS, ABOVE AND BELOW (NOT IN BEND RADII) ALL GROUND LEADS TO BE INSTALLED WITH PROPER WEATHERPROOFING 	<h3 style="text-align: center;">OUTDOOR GROUNDING CONNECTION</h3> <p style="text-align: center;">SCALE: NOT TO SCALE</p> <p>NOTE:</p> <p>INSTALL TOP QUALITY, CLEAR HEAT SHRINKABLE INSULATOR SO IT COVERS 2" OF THE CABLE INSULATOR.</p>
<h3 style="text-align: center;">GROUND BAR DETAIL</h3> <p style="text-align: center;">SCALE: N.T.S.</p> <p>NOTE:</p> <ol style="list-style-type: none"> FOR GROUND BOND TO STL ONLY; INSERT A TOOTH WASHER BETWEEN LUG & STEEL COAT ALL SURFACES W/ ANTI-OXIDANT COMPOUND ALL HOSES ARE CS 1/16" USE NO-OX-ID "A-SPECIAL" ANTI-OXIDANT GREASE ON ALL LUG CONNECTIONS. LUGS MAY BE INSTALLED ON BOTH SIDES OF THE BUSS BAR AT THE SAME POSITION WHERE NECESSARY BUT MAY NOT BE INSTALLED STACKED ON THE SAME SIDE OF THE BUSS BAR IN THE SAME POSITION. 	<h3 style="text-align: center;">CADWELD CONNECTIONS</h3> <p style="text-align: center;">SCALE: NOT TO SCALE</p>

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GROUNDING DETAILS

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G-2

AHMAD S. ALAYYUBI
PROFESSIONAL ENGINEER
85368
5/24/12