

THIRD AMENDMENT TO LICENSE AGREEMENT

THIS THIRD AMENDMENT TO LICENSE AGREEMENT (Third Amendment) is made and entered into by and between the City of Sugar Land, Texas, a municipal corporation (City) and T-Mobile West LLC, a Delaware limited liability company, f/k/a T-Mobile West Corporation, a Delaware corporation, successor in interest to T-Mobile Texas, L.P., a wholly-owned subsidiary of T-Mobile, USA, Inc. (T-Mobile).

Recitals

A. The City and T-Mobile (or as applicable, their respective predecessors in interest) entered into a License Agreement dated March 22, 2006 (Original License) with respect to the Licensed Premises located at 13944 Oakwood Lane, Sugar Land, F011 Bend County, Texas 77478.

B. On December 4, 2012, the City and T-Mobile entered into the First Amendment to License Agreement for purposes of (i) revising the definition of Antenna Facility to allow different equipment on the Water Tank and Licensed Premises and (i) authorizing assignment of the License from T-Mobile Texas, L.P., a wholly-owned subsidiary of T-Mobile, USA, Inc., to T-Mobile West, LLC, a Delaware limited liability company f/k/a T-Mobile West Corporation, a Delaware corporation (First Amendment).

C. On December 23, 2016, the City and T-Mobile entered into the Second Amendment to License Agreement for purposes of (i) revising the definition of Antenna Facility to allow different equipment on the Water Tank and Licensed Premises; and (ii) adding a provision regarding interference with the City's three tier wireless system; (iii) adding a provision that the City grants no property interest in or to the Water Tank or Licensed Premises; and (iv) increasing the annual license fee for use of the Licensed Premises.

D. The City and T-Mobile desire to enter into this Third Amendment to revise the definition of Antenna Facility to allow different equipment on the Water Tank and Licensed Premises. Collectively, the Original License, First Amendment, Second Amendment, and this Third Amendment are the "License".

Agreement

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, the City and T-Mobile agree as follows:

1. That the definition of *Antenna Facility* in Section A of the License is amended to read as follows:

Antenna Facility means a communications facility consisting of antennae and associated cabling and equipment as more particularly described in the Exhibit A

to this Third Amendment, which is incorporated herein, and which replaces Exhibit A attached to the Original License, Exhibit A to the Second Amendment and Exhibit C attached to the First Amendment.

2. That the first sentence of Section B.2. of the License is amended to read as follows:

Four antenna will be placed on the Water Tower and oriented as provided in Exhibit A in line with T-Mobile's network requirements for antenna orientation.

3. Except as specifically set forth herein, this Third Amendment does not modify, alter, or amend the remaining terms of the License, as amended by the First Amendment and Second Amendment, all of which remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Third Amendment effective on the later date of the parties' signatures.

City of Sugar Land, Texas,
a municipal corporation

Name: Allen Bogard
Title: City Manager

Date: _____

T-Mobile West LLC,
a Delaware limited liability company


Name: Keith A. Haydon
Title: Director, Network Eng & Ops

Date: 9/19/2017

EXHIBIT "A"

Construction Drawings

T-Mobile **SECADD AND L1900 CAPACITY** **PROJECT**

SITE NAME: SUGAR LAND/MASON WT
SITE NUMBER: A3F0197A
STRUCTURE TYPE: WATER TANK

THESE PLANS ARE BASED ON RTDS A&L TEMPLATE: 795P_RUSQ_No U2100 LAST
 MODIFIED 03/23/2017, GENERAL CONTRACTOR TO VERIFY AND INCORPORATE
 MOST RECENT VERSION OF RTDS WITH T-MOBILE PRIOR TO CONSTRUCTION.

PREPARED FOR:
T-Mobile
 Get More From Life
 2 GREENWAY PLAZA SUITE 1100
 HOUSTON, TX 77046

PROJECT INFORMATION SITE NAME: SUGAR LAND/MASON WT SITE NUMBER: A3F0197A 911 ADDRESS: 13948 DAYWOOD LANE SUGAR LAND, TX LATITUDE: 29.84444007 LONGITUDE: -95.83186707 GROUND ELEVATION: 83' AMSL JURISDICTION: CITY OF SUGAR LAND STRUCTURE TYPE: WATER TANK	DRIVING DIRECTIONS FROM T-MOBILE SITE, 1880 N. SAN HOUSTON PARKWAY E., SUITE 190 HOUSTON TEXAS 77052 GET ON HWY 59 S/A-88 FROM TEXAS 9 BELTWAY FRONTAGE RD AND 4TH ST/EASTSIDE FREEWAY SERVICE RD CONTINUE ON HWY 59 S/A-88 TOWARD STATE HWY 288 S/73-288 S AND US-80 ALT 9 TO ELDRIDGE RD IN SUGAR LAND. CONTINUE ON ELDRIDGE RD. DRIVE TO DAYWOOD LN. SITE WILL BE ON THE RIGHT.	VICINITY MAP 	APPROVALS PROPERTY OWNER OR REP. _____ DATE _____ LAND USE PLANNER _____ DATE _____ OPERATIONS _____ DATE _____ RF ENGINEER _____ DATE _____ JOHNS AND REAL ESTATE _____ DATE _____ CONSTRUCTION MANAGER _____ DATE _____	SITE NAME: SUGAR LAND/MASON WT SITE NUMBER: A3F0197A SITE ADDRESS: 13948 DAYWOOD LANE SUGAR LAND, TX FORT BEND COUNTY
SCOPE OF WORK THE WIRELESS COMMUNICATIONS FACILITY IS NOT INTENDED FOR REGULAR OCCUPANCY 1. REPLACEMENT OF (3) EXISTING ANTENNAS WITH (4) NEW ANTENNAS 2. REMOVAL OF (3) PING RRU 3. INSTALLATION OF (4) PING RRU 4. INSTALLATION OF (4) FIBR 5. INSTALLATION OF (1) FIBR 6. INSTALLATION OF (4) DIVERSIFIERS 7. NO AC ELECTRICAL WORK AS PART OF THIS PROJECT SCOPE. DC LOADS ONLY AND THERE ARE NO APPRECIABLE CHANGES TO THE EXISTING LOAD TOTALS 8. NO NEW GROUNDING AND BONDING SYSTEM IS PART OF THIS PROJECT SCOPE. BOND ALL NEW EQUIPMENT TO EXISTING SYSTEM	CONTACTS APPLICANT: T-MOBILE USA INC. 2 GREENWAY PLAZA SUITE 1100 HOUSTON, TX 77046 CONTACT: ANTHONY BARNES PHONE: 713-407-3494 PROPERTY OWNER: CITY OF SUGAR LAND	COUNTY MAP 	SHEET INDEX SITE GENERAL ARRANGEMENT PLANS T1.0 TITLE SHEET A1.0 GENERAL NOTES A1.0 COMPOUND PLAN A1.1 EQUIPMENT PLAN A2.0 BUILDING ELEVATION A2.1 EXISTING ANTENNA PLAN A2.2 PROPOSED ANTENNA PLAN A2.3 ANTENNA AND RRU MOUNTING DETAILS A3.0 EQUIPMENT DETAILS A3.1 EQUIPMENT DETAILS A4.0 SITE INFORMATION & ANTENNA DIAGRAM A4.1 SECTOR INFORMATION A4.2 SECTOR INFORMATION G1.0 GROUNDING DETAILS NOTE: DRAWING SCALES ARE FOR 11"x17" @ 27"x34" SHEETS UNLESS OTHERWISE NOTED.	STAMP: 6/12/2017 
APPLICABLE CODES & STANDARDS - INTERNATIONAL BUILDING CODE, 2015 EDITION AS ADOPTED BY LOCAL JURISDICTION - NATIONAL ELECTRICAL CODE, 2014 EDITION AS ADOPTED BY LOCAL JURISDICTION - INTERNATIONAL MECHANICAL CODE, 2015 EDITION AS ADOPTED BY LOCAL JURISDICTION - INTERNATIONAL ENERGY CONSERVATION CODE, 2015 EDITION AS ADOPTED BY LOCAL JURISDICTION	ARCHITECT/ENGINEER: LEVEL 9 CONSULTING ENGINEERS 18315 FM 2155, SUITE 201 GARDEN ROCC, TX 75249 CONTACT: TONY HABEL PHONE: 210-547-5811 TELEPHONE COMPANY: POWER COMPANY:	SITE ACCESS PROCEDURES		LEVEL 5 (Level 5 Professional Engineer) 19115 FM 2225, STE. 801 KATY, TEXAS 77450 PHONE: 281-946-9111 FAX: 281-946-9112 DRAWN BY: JBS APPROVED BY: TH DATE: 05/31/17 REVISION: NO. DESCRIPTION BY DATE 100000000 FOR REVIEW JBS 05/31/17 100000000 FOR CONSTRUCTION TH 06/12/17 SHEET TITLE TITLE SHEET SHEET NUMBER: T1.0

1. GENERAL REQUIREMENTS

A. PURPOSE AND INTENT

THE DRAWING AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED, OR SPECIFIED IN BOTH. THERE SHALL BE NO DISCREPANCIES BETWEEN REQUIREMENTS SHOWN IN BOTH. THE MORE STRINGENT REQUIREMENTS SHALL APPLY.

THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.

B. CONFLICTS

1. VERIFY ALL MEASUREMENTS AT THE SITE BEFORE ORDERING MATERIAL OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS OR DIMENSIONS SHOWN ON PLANS. SUBMIT NOTICE OF ANY DISCREPANCY IN DIMENSIONS OR OTHERWISE TO CH FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.

2. CONTRACTOR SHALL COORDINATE WITH CM FOR COAX LINE SHEEPS TO VERIFY FEEDER CABLE DISTANCES.

3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF OFFICIARIES OF CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS GOVERNING THE WORK.

C. CLEANING

KEEP THE SITE FREE FROM ACCUMULATION OF WASTE AND RUBBISH CAUSED BY EMPLOYEES. AT THE COMPLETION OF THE WORK, REMOVE ALL WASTE AND NON-CONSTRUCTION MATERIAL, INCLUDING ALL CONSTRUCTION TOOLS, SCAFFOLDING, AND SUPPLIED MATERIAL, AND LEAVE SITE CLEAN AND READY FOR USE.

D. CODES

CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS, AND RULES PROMULGATED BY FEDERAL, STATE AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE PROJECT SITE. THIS RESPONSIBILITY IS IN EFFECT REGARDLESS OF WHETHER THE LAW, ORDINANCE, REGULATION OR RULE IS MENTIONED IN THESE SPECIFICATIONS.

E. LICENSING

CONTRACTOR SHALL HAVE AND MAINTAIN A VALID CONTRACTOR'S LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. FOR JURISDICTIONS THAT LICENSE INDIVIDUAL TRADERS, THE TRADESMAN OR SUBCONTRACTOR PERFORMING THOSE TRADES SHALL BE LICENSED. RESEARCH AND COMPLY WITH THE LICENSING LAWS, PAY LICENSE FEES, AND SELECT AND INFORM SUBCONTRACTORS REGARDING THESE LAWS.

F. OSHA

FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND STATE LAWS BASED IN THE FEDERAL, OCCUPATIONAL SAFETY AND HEALTH ACT. THESE REGULATIONS INCLUDE, BUT ARE NOT LIMITED TO, REGULATIONS DEALING WITH TOWER CONSTRUCTION AND SAFETY, ERECTION AND DISMANTLING, AND WORK IN CONFINED SPACES. ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES DURING CONSTRUCTION.

G. PHOTOS

PROVIDE PHOTOS OF THE ENTIRE INSTALLATION, INCLUDING BUT NOT LIMITED TO EQUIPMENT INSTALLATION, GROUNDING, CABLEING, AND ANTENNA WORK.

H. TOWER SECURITY

IF REQUIRED, TOWER MUST BE FENCED, TEMPORARILY OR PERMANENTLY WITHIN 24 HOURS OF ERECTION. DO NOT ALLOW THE GATE ACCESSING THE TOWER AREA TO REMAIN OPEN OR UNATTENDED ANY TIME FOR ANY REASON. KEEP THE GATE CLOSED AND LOCKED WHEN NOT IN USE.

I. SITE CONTROL

1. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR CONTAINMENT OF SEDIMENT AND CONTROL OF EROSION AT THE SITE. ANY DAMAGE TO ADJACENT OR DOWNSTREAM PROPERTIES WILL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO T-MOBILE.

2. THE CONTRACTOR IS TO MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO STAND OR FLOOD ANY DAMAGE TO STRUCTURES OR WORK ON THE SITE CAUSED BY INADEQUATE MAINTENANCE OF DRAINAGE PROVISIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COST ASSOCIATED WITH REPAIRS FOR SUCH DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.

3. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE CONSTRUCTION MANAGER AND IN ACCORDANCE WITH JURISDICTIONAL AUTHORITIES.

2. GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND CROUNDS. CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE ALL RUBBISH, WASTE MATERIALS, LITTER AND ALL FOREIGN SUBSTANCES. REMOVE PETROCHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS HAVE CROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE.

3. THE PLANS SHOW SOME SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED IN PARTICULAR. THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATIONS OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXCAVATION ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST CALL LOCAL UTILITY LOCATOR COMPANY.

4. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR THE OWNER'S REPRESENTATIVE.

5. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.

6. THE CONTRACTOR SHALL RESTORE ALL DAMAGED, PUBLIC OR PRIVATE, PROPERTY TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.

7. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.

8. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPLACED.

9. ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR DEMANTLING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.

11. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.

12. A 20-FOOT HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM ALL EXISTING POWER LINES.

PREPARED FOR:

T-Mobile
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
SITE NUMBER:
A3F0197A
SITE ADDRESS:
13048 OAKWOOD LANE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017



LEVEL 5
EXTRA FIVE DIMENSIONAL, INC.
19715 FM 3292, STE. 301
GARDEN GROVE, TX 76844
Ph: (214) 548 9917
F 13046

DESIGNED BY: JES

APPROVED BY: JES

DATE DRAWN: 05/31/17

REVISION

NO. OF DESCRIPTION BY DATE

COORDINATED FOR REVIEW BY 05/31/17

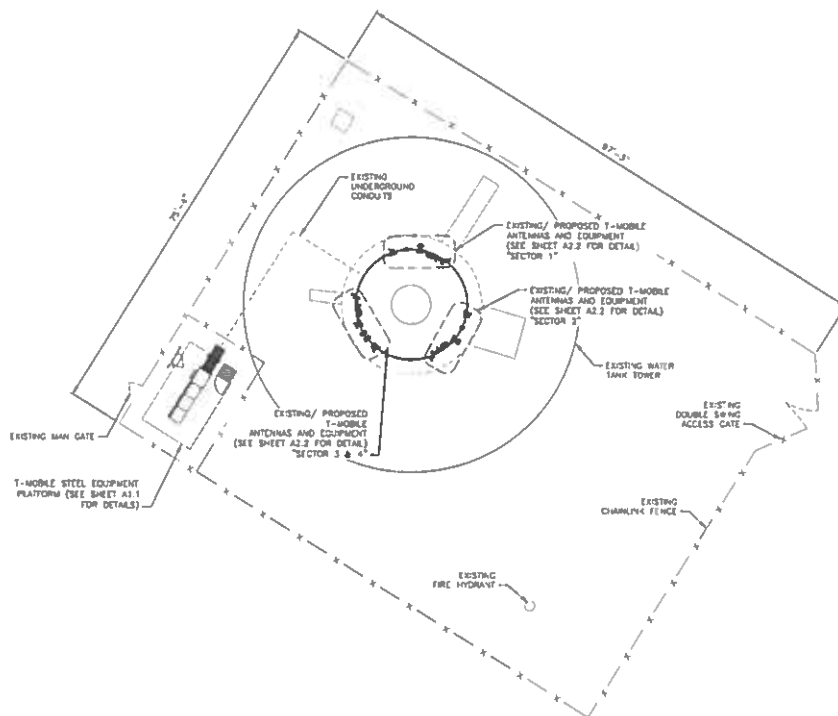
COORDINATED FOR CONSTRUCTION BY 06/12/17

SHEET TITLE

GENERAL NOTES

SHEET NUMBER:

N1.0



1 COMPOUND PLAN
 TRUE NORTH
 FULL SIZE PLOT SCALE: 1/8" = 1'-0"
 HALF SIZE PLOT SCALE: 1/16" = 1'-0"
 0 4 8 16

PREPARED FOR:
T-Mobile
 Get More From Life
 2 GREENWAY PLAZA SUITE 1100
 HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
 SITE NUMBER:
A3F0197A
 SITE ADDRESS:
 12948 DARTWOOD LANE
 SUGAR LAND, TX
 FORT BEND COUNTY

STAMP:
 6/12/2017

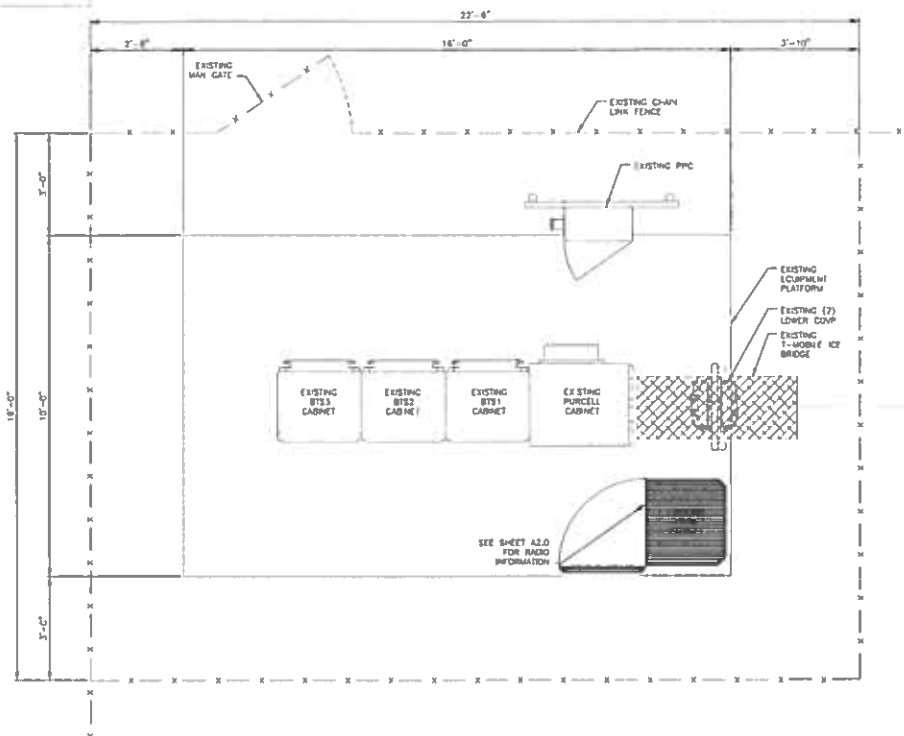
LEVEL 5
 17113 FM 5232, STE. B01
 GARDEN GROVE, TX 76046
 PH: (817) 545-0911
 #13646

APPROVED BY: TH		DATE: 05/31/17	
REVISION			
NO.	DESCRIPTION	BY	DATE
1	CONSTRUCTION FOR REVIEW	TH	05/31/17
2	CONSTRUCTION FOR CONSTRUCTION	TH	06/12/17

SHEET TITLE:
COMPOUND PLAN

SHEET NUMBER:
A1.0

NOTE:
1 ALL EQUIPMENT PLACEMENT IS TO BE FIELD VERIFIED
BY GC DURING PRE-CONSTRUCTION WALKS



1 ENLARGED EQUIPMENT PLAN
TRUE NORTH
FULL SIZE PLOT SCALE: 1" = 1'-0"
HALF SIZE PLOT SCALE: 1/2" = 1'-0"

PREPARED FOR:
T-Mobile
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
SITE NUMBER:
A3F0197A
SITE ADDRESS:
13948 CHAYWOOD LAKE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:
6/12/2017

LEVEL 5
Landscape Architects
19115 FM 2052, STE. 301
GARDEN GROVE, TX 77466
PH: 281-546-8911
F: 281-546-8912

DESIGNED BY:	DS
APPROVED BY:	TH
DATE DRAWN:	05/31/17

NO.	DESCRIPTION	BY	DATE
1	COORDINATED FOR REVIEW	DS	05/31/17
2	COORDINATED FOR CONSTRUCTION	TH	06/12/17

SHEET TITLE:
EQUIPMENT PLAN

SHEET NUMBER:
A1.1

NOTE:

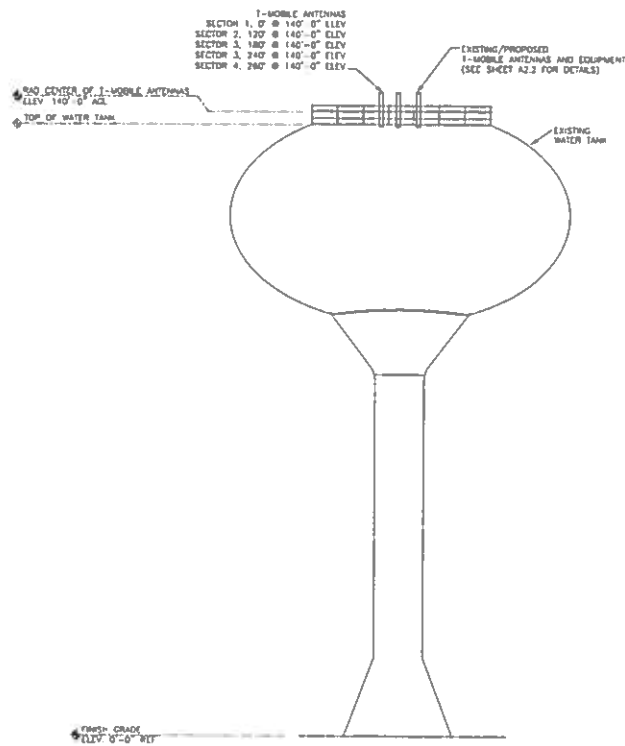
1. STRUCTURAL ANALYSIS PERFORMED UNDER SEPARATE SCOPE OF WORK. CONTRACTOR TO THOROUGHLY REVIEW AND ADHERE TO THE STRUCTURAL ANALYSIS. REFER TO THE ANALYSIS FOR STRUCTURAL INFORMATION INCLUDING BUT NOT LIMITED TO STRUCTURAL UPGRADES, MOUNTING TYPES, ANTENNA DETAILS AND HEIGHTS, CABLE ROUTINGS, ETC. ANY DISCREPANCY BETWEEN THE DRAWINGS AND STRUCTURAL ANALYSIS, AND/OR TOWER PLANS SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO INSTALLATION.

REMARKS:

- CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH T-MOBILE RFDS & STRUCTURAL ANALYSIS.
- CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF PANEL ANTENNAS WITH T-MOBILE PM. (WHICH APPLICABLE)
- ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

SITE TRANSMISSION CABLES			
TYPE	SIZE	QUANTITY	LENGTH
COAX	7/8"	8	250'
HYBRID	PISTON CAP	2	230'

* TO BE REMOVED PROPOSED



1 ELEVATION
SCALE: N.T.S.

PREPARED FOR:

T-Mobile
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
SITE NUMBER:
A3F0197A
SITE ADDRESS:
13948 CHERRYWOOD LANE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017



LEVEL 5
Civil/Structural Engineers, Inc.
11111 FM 2252, STE. 301
DALLAS, TEXAS 75244
PH: (214) 348-8881
F: (214) 348-8882

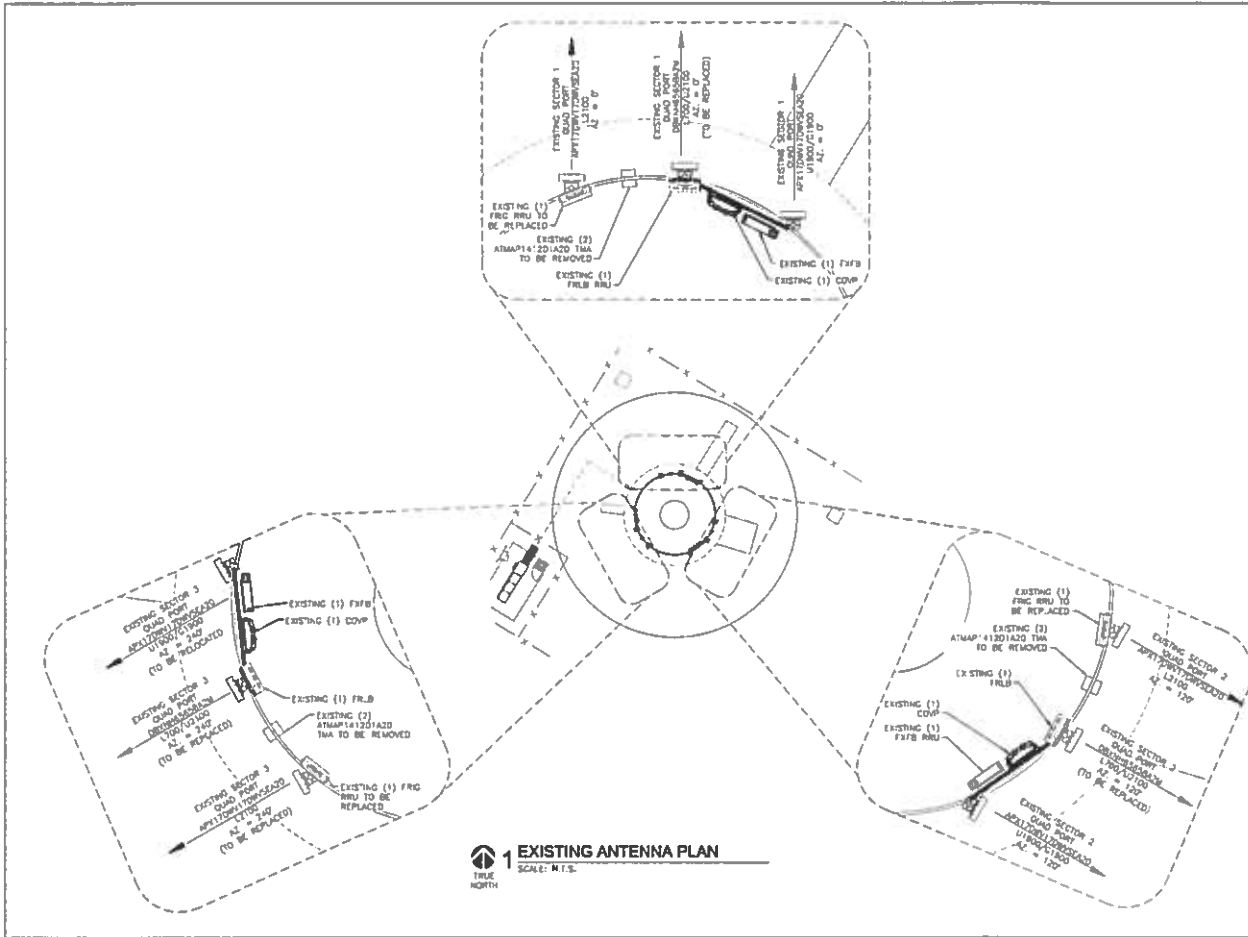
DRAWN BY:	JBS
APPROVED BY:	TH
DATE DRAWN:	05/31/17
DATE APPROVED:	05/31/17
NO. OF REVISIONS	0
DESCRIPTION	
DATE	
FOR REVIEW	05/31/17
FOR CONSTRUCTION	06/12/17

SHEET TITLE:

BUILDING ELEVATION

SHEET NUMBER:

A2.0



PREPARED FOR:

T-Mobile
Get More From Life
22 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT

SITE NUMBER:
A3F0197A

SITE ADDRESS:
13948 DAYWOOD LANE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017

STATE OF TEXAS
TIMOTHY L. MUEBEL
102126
REGISTERED PROFESSIONAL ENGINEER

LEVEL 5
COMMERCIAL DESIGN

HENRY 3252, STE. 301
GARDEN RIDGE, TX 75046
PH: 281-448-8811
F: 281-448-8811

DRAWN BY: BJS

APPROVED BY: TH

DATE: 05/31/17

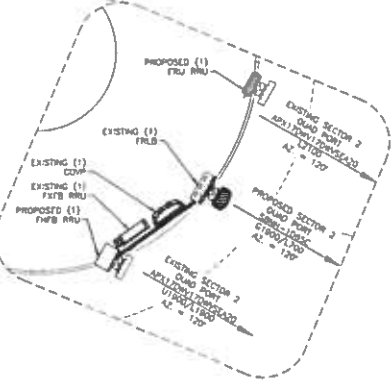
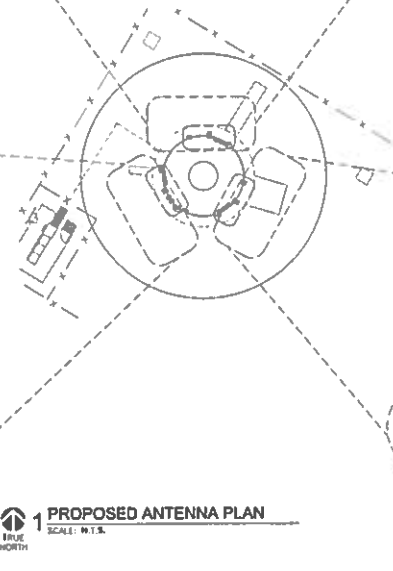
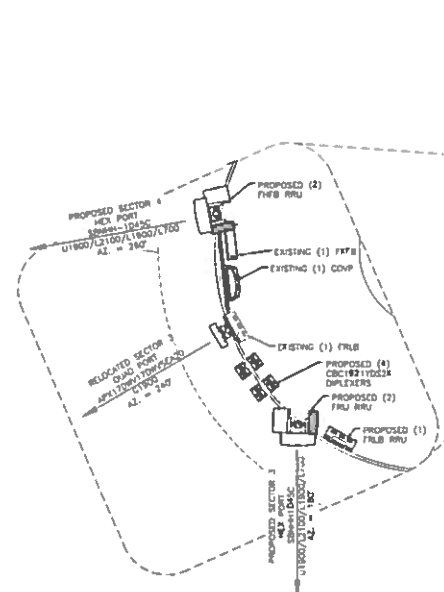
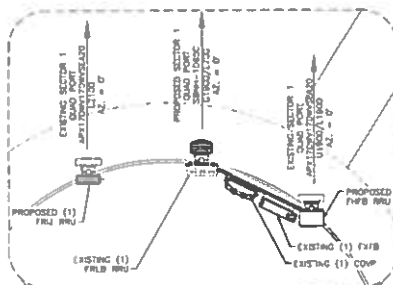
REVISION:

NO.	DESCRIPTION	REV	DATE
1	COORDINATED FOR REVIEW	1	05/31/17
2	COORDINATED FOR CONSTRUCTION	2	06/12/17

SHEET TITLE:
EXISTING ANTENNA PLAN

SHEET NUMBER:
A2.1

NOTES:
1 BOND NEW RRU TO EXISTING
GROUND USING #2 AND GREEN
INSULATED COPPER CONDUCTOR



1 PROPOSED ANTENNA PLAN
SCALE: N.T.S.



PREPARED FOR:
T-Mobile
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

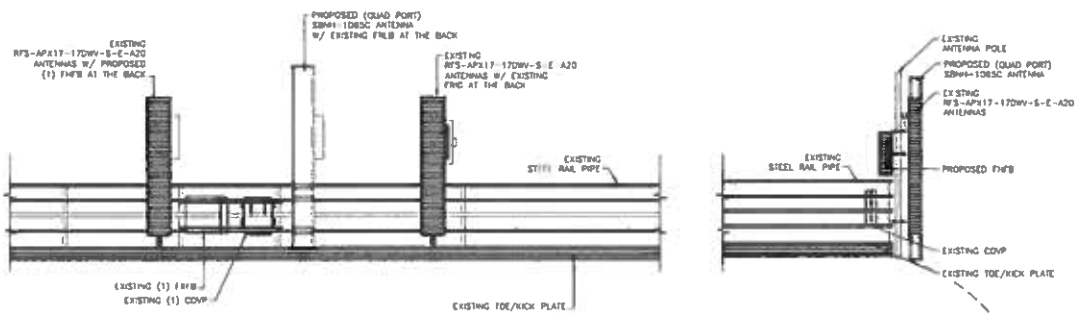
SITE NAME:
**SUGAR
LAND/MASON
WT**
SITE NUMBER:
A3F0197A
SITE ADDRESS:
13946 OAKWOOD LAKE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:
6/12/2017

LEVEL 5
LEVEL 5 ENGINEERING, INC.
19115 HWY 235, STE. 801
GARDEN RIDGE, TX 75046
PH: (281) 542-9011
F: (281) 542-9012
APPROVED BY: [Signature]
DATE: 05/31/17
DATE DRAWN: 05/31/17
REVISION:
NO. OR DESCRIPTION
DATE
COORDINATOR FOR REVIEW
DATE
COORDINATOR FOR CONSTRUCTION
DATE

SHEET TITLE:
**PROPOSED
ANTENNA PLAN**
SHEET NUMBER:
A2.2

NOTES:
1. REFER TO STRUCTURAL ANALYSIS FOR
APPURTENANCE MOUNTING REQUIREMENTS



1 EQUIPMENT MOUNTING DETAILS
SCALE: N.T.S.

PREPARED FOR:
...T-Mobile...
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
**SUGAR
LAND/MASON
WT**
SITE NUMBER:
A3F0187A
SITE ADDRESS:
13048 OAKWOOD LANE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017



LEVEL 5 CONSULTING ENGINEERS, INC.	
MEMBER FIRM 2222, STATE NO. 300	FIRM LICENSE NO. 0011
SUGAR LAND, TEXAS 77478	
DESIGNED BY: BS	DATE: 05/31/17
APPROVED BY: TH	DATE: 05/31/17
REVISION	
NO. DESCRIPTION	BY DATE
COORDINATED FOR REVIEW	BS 05/31/17
COORDINATED FOR CONSTRUCTION	TH 06/12/17

SHEET TITLE:
**PROPOSED
ANTENNA PLAN**

SHEET NUMBER:
A2.3

[illegible]

2.1.4 Dimensions and Weight

Property	Value	Dimensions adaptation
Height	With solar shield: 672 mm (26 3/4 in.) Without solar shield: 837 mm (32 9/16 in.) Without top handle: 580 mm (22 8/16 in.)	
Depth	320 mm (12 5/8 in.)	
Width	Without solar shield: 320 mm (12 5/8 in.)	
Weight	With solar shield: 23 kg (51 lb 5 oz) Without solar shield and mounting bracket: 23 kg (48 lb 5 oz)	

3.1.8 Electrical Specifications

The electrical specifications for the F147B are below:

Property	Typical
Maximum supply voltage	48.0 VDC
Maximum input voltage range	40.5 to 57.0 VDC
Rated input voltage range	36.8 to 48.5 VDC
Rated output voltage range	5.7 to 50.0 VDC

Product Specifications

[illegible]

Product Specifications

[illegible]

Product Specifications

[illegible]

2 SBNH-1D65C DETAIL

: N.T.S.

PREPARED FOR:

T-Mobile
Get More From Life

2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
**SUGAR
LAND/MASON
WT**

SITE NUMBER:
A3F0197A

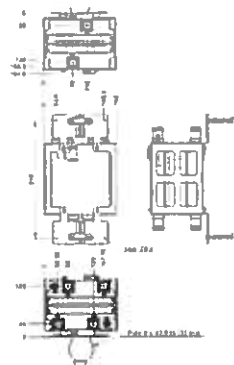
SITE ADDRESS:
13948 OAKWOOD LAKE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017

[illegible]

SHEET TITLE:
**EQUIPMENT
 DETAILS**



MANUFACTURER: COMMSOPE
MODEL: CBC1921Y-DS-2X
WEIGHT W/O MOUNTING HARDWARE: 16.5 LBS
DIMENSIONS: HxWxD: 7.8"x7.8"x3.5"

1 CBC1921Y-DS-2X DETAIL
SCALE: N.T.S.

NSN existing radio module for LTE 700/Band 12 - FRLB

Characteristic	Value
RF power type	50W, 75W, 100W, 150W, 200W
Antenna	3m, 1m
SWR	1.5:1 max
VSWR	1.5:1 max
Power	100W
Max consumption	100W
System compatibility	100W



System	Configuration
Band 12 LTE 700 MHz	100W
Band 4/5/12/13 CD	100W
Band 2/5/12/13 CD	100W

Dimension	Value
Height	100W
Width	100W
Depth	100W

2 FRLB DETAIL
SCALE: N.T.S.

Product Specifications

COMMSOPE

Model	Power	Antenna	SWR	VSWR	Power	Antenna	SWR	VSWR
100W	100W	100W	100W	100W	100W	100W	100W	100W
75W	75W	75W	75W	75W	75W	75W	75W	75W
50W	50W	50W	50W	50W	50W	50W	50W	50W
30W	30W	30W	30W	30W	30W	30W	30W	30W
20W	20W	20W	20W	20W	20W	20W	20W	20W
15W	15W	15W	15W	15W	15W	15W	15W	15W
10W	10W	10W	10W	10W	10W	10W	10W	10W
5W	5W	5W	5W	5W	5W	5W	5W	5W

Product Specifications

COMMSOPE

Model	Power	Antenna	SWR	VSWR	Power	Antenna	SWR	VSWR
100W	100W	100W	100W	100W	100W	100W	100W	100W
75W	75W	75W	75W	75W	75W	75W	75W	75W
50W	50W	50W	50W	50W	50W	50W	50W	50W
30W	30W	30W	30W	30W	30W	30W	30W	30W
20W	20W	20W	20W	20W	20W	20W	20W	20W
15W	15W	15W	15W	15W	15W	15W	15W	15W
10W	10W	10W	10W	10W	10W	10W	10W	10W
5W	5W	5W	5W	5W	5W	5W	5W	5W

Product Specifications

COMMSOPE

Model	Power	Antenna	SWR	VSWR	Power	Antenna	SWR	VSWR
100W	100W	100W	100W	100W	100W	100W	100W	100W
75W	75W	75W	75W	75W	75W	75W	75W	75W
50W	50W	50W	50W	50W	50W	50W	50W	50W
30W	30W	30W	30W	30W	30W	30W	30W	30W
20W	20W	20W	20W	20W	20W	20W	20W	20W
15W	15W	15W	15W	15W	15W	15W	15W	15W
10W	10W	10W	10W	10W	10W	10W	10W	10W
5W	5W	5W	5W	5W	5W	5W	5W	5W

3 SBNHH-1D45C DETAIL
SCALE: N.T.S.

PREPARED FOR:
...T-Mobile...
Get More From Life
2 GREENWAY PLAZA SUITE 1100
HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
SITE NUMBER:
A3F0197A
SITE ADDRESS:
13948 DUNWOOD LAKE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:
6/12/2017

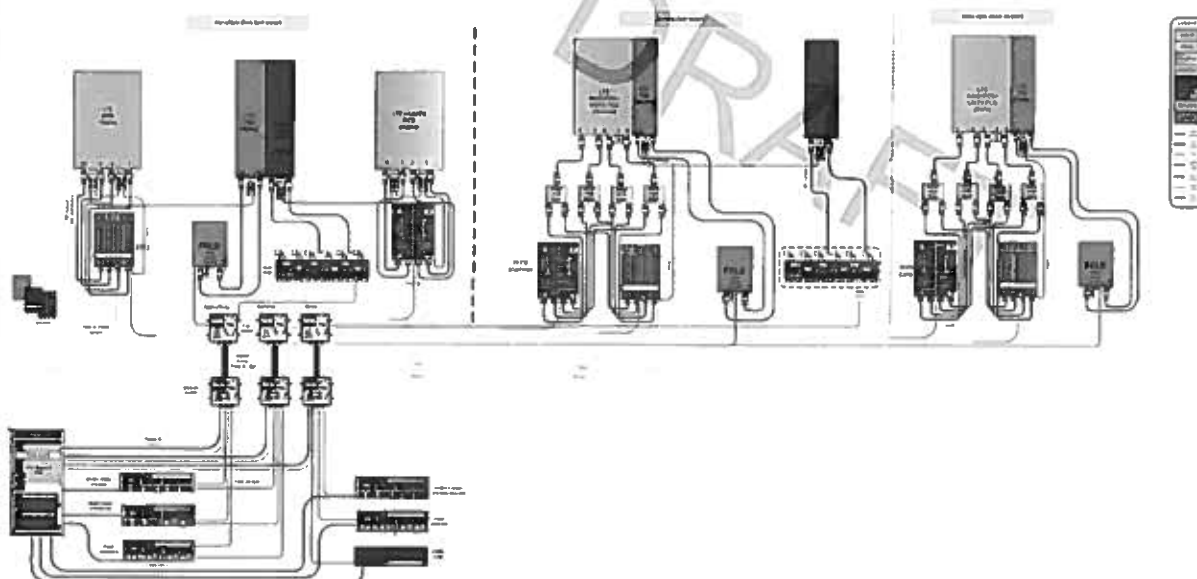


NO	DESCRIPTION	BY	DATE
1	DESIGNED FOR REVIEW	MS	05/31/17
2	DESIGNED FOR CONSTRUCTION	TH	06/12/17

SHEET TITLE:
EQUIPMENT DETAILS
SHEET NUMBER:
A3.1

Section 1 - Site Information		
Site ID: A3F0197A	Site Name: Sugar Land/Mason HT	Location: 29 644442D
Version: 2.3	Site Class: Warehouse	Latitude: -95.631667D
Project Type: Capacity L1H3D	Site Type: Structure Non Building	Address: 13648 Oakwood Lane (E911)
Approved: Not Approved	Substation Type:	City, State: Sugar Land, TX
Approved By: Not Approved	Plan Year:	Region: SOUTH
Last Modified: 3/2/2017 12:17:43 PM	Market: HOUSTON TX	
Last Modified By: GSM/HOD/LSB/262	Vendor: HUBB	
	Landlord: City of Sugar Land	
Sub Frequency: 795P_R01_400 U2100	Alt Frequency: 795P_R010_400 U2100	
Sub Use Count: 4	Antenna Count: 8	Cell Line Count: 0
	FMA Count: 0	RFU Count: 15

Configuration 795P_R010_400 U2100
 Tower Top Height for Configuration: 100m
 SA Volume and Labeling for Aging: 0.0m/s & 0.0m/s under 0.0m/s (Average Study shown with 400m Study)



PREPARED FOR:
T-Mobile
 Get More From Life
 2 GREENWAY PLAZA SUITE 1100
 HOUSTON, TX 77046

SITE NAME:
**SUGAR
 LAND/MASON
 HT**
 SITE NUMBER:
A3F0197A
 SITE ADDRESS:
 13648 OAKWOOD LANE
 SUGAR LAND, TX
 FORT BEND COUNTY

STAMP:

6/12/2017



LEVEL 5
 CONSULTING ENGINEERS, INC.
 11015 FM 2258, STE. 300
 CANTON, TEXAS 75940
 PHONE: 409.542.9111
 FAX: 409.542.9112

DESIGNED BY:	BS
APPROVED BY:	TH
DATE DRAWN:	05/31/17
REVISION:	
NO. DESCRIPTION	REV DATE
COORDINATED FOR REVIEW	05/31/17
COORDINATED FOR CONSTRUCTION	06/13/17

SHEET TITLE:

**SITE INFORMATION &
 ANTENNA DIAGRAM**

SHEET NUMBER:

A4.0

Proposed Lot Dimensions				
Lot	1	2	3	4
Lot Area	1.000	1.000	1.000	1.000
Lot Width	1.000	1.000	1.000	1.000
Lot Depth	1.000	1.000	1.000	1.000
Lot Shape	1.000	1.000	1.000	1.000
Lot Orientation	1.000	1.000	1.000	1.000
Lot Use	1.000	1.000	1.000	1.000
Lot Notes	1.000	1.000	1.000	1.000

APP 1 (Proposed) view from front (Note: the images show view from behind)

Proposed Lot Dimensions				
Lot	1	2	3	4
Lot Area	1.000	1.000	1.000	1.000
Lot Width	1.000	1.000	1.000	1.000
Lot Depth	1.000	1.000	1.000	1.000
Lot Shape	1.000	1.000	1.000	1.000
Lot Orientation	1.000	1.000	1.000	1.000
Lot Use	1.000	1.000	1.000	1.000
Lot Notes	1.000	1.000	1.000	1.000

APP 2 (Proposed) view from front (Note: the images show view from behind)

Proposed Lot Dimensions				
Lot	1	2	3	4
Lot Area	1.000	1.000	1.000	1.000
Lot Width	1.000	1.000	1.000	1.000
Lot Depth	1.000	1.000	1.000	1.000
Lot Shape	1.000	1.000	1.000	1.000
Lot Orientation	1.000	1.000	1.000	1.000
Lot Use	1.000	1.000	1.000	1.000
Lot Notes	1.000	1.000	1.000	1.000

APP 3 (Proposed) view from front (Note: the images show view from behind)

Proposed Lot Dimensions				
Lot	1	2	3	4
Lot Area	1.000	1.000	1.000	1.000
Lot Width	1.000	1.000	1.000	1.000
Lot Depth	1.000	1.000	1.000	1.000
Lot Shape	1.000	1.000	1.000	1.000
Lot Orientation	1.000	1.000	1.000	1.000
Lot Use	1.000	1.000	1.000	1.000
Lot Notes	1.000	1.000	1.000	1.000

APP 4 (Proposed) view from front (Note: the images show view from behind)

PREPARED FOR:
Mobile
 Get More From Life
 2 GREENWAY PLAZA SUITE 1100
 HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON
 WT
 SITE NUMBER:
A3F0197A
 SITE ADDRESS:
 12946 DAWOOD LANE
 SUGAR LAND, TX
 FORT BEND COUNTY

STAMP:

6/12/2017



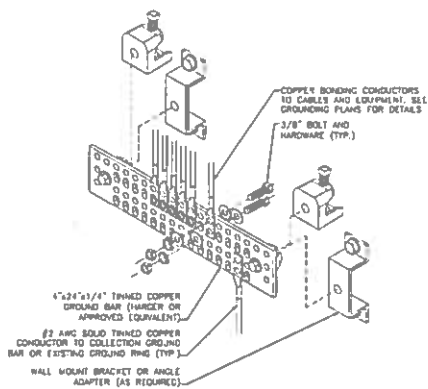
LEVEL 5
 10013 Fm 2223, Ste. B01
 GARDEN ROUGE, TX 75045
 PH: (281) 548-8814
 F: (281) 548-8815

APPROVED BY: **TH**
 DATE DRAWN: **05/31/17**

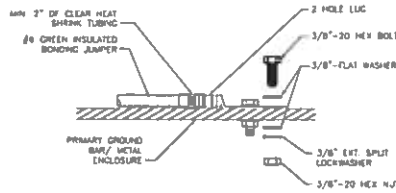
NO. DESCRIPTION REV. DATE
 1. CORRECTIONS FOR 06/08
 2. CORRECTIONS FOR 06/08
 3. CORRECTIONS FOR 06/08

SHEET TITLE:
RAN EQUIPMENT & SECTOR INFORMATION

SHEET NUMBER:
A4.1



1 GROUND BAR DETAIL
SCALE: N.T.S.



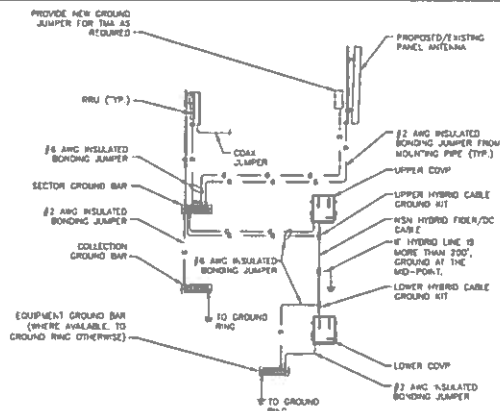
- INSTALLATION NOTES:**
1. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.
 2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT.
 3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG AND PIPE. CLEAN EXCESS COMPOUND.
 4. USE SOLID COPPER WIRE AND MECHANICAL 2-HOLE LUG FOR ALL EXTERIOR GROUNDING.

2 MECHANICAL GROUND CONNECTION DETAIL
SCALE: N.T.S.



COORDINATE WITH CONSTRUCTION MANAGER FOR PROJECT SPECIFIC WELD TYPES

3 TYPICAL CADWELD CONNECTIONS
SCALE: N.T.S.



4 GROUNDING SCHEMATIC
SCALE: N.T.S.

PREPARED FOR:
T-Mobile
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HOUSTON, TX 77046

SITE NAME:
SUGAR LAND/MASON WT
SITE NUMBER:
A3F0187A
SITE ADDRESS:
13848 GAYWOOD LAKE
SUGAR LAND, TX
FORT BEND COUNTY

STAMP:

6/12/2017



LEVEL 5 CORPUS CHRISTI ENGINEERS, INC.	
17115 FM 3256, STE. 801 GARDEN ROUGE, TX 77046	PH: (281) 946-8881 F: 13846
DRAWN BY: BJS	APPROVED BY: TH
DATE DRAWN: 08/31/17	REVISION:
NO. DESCRIPTION	BY DATE
1. CORROSION FOR REVIEW	MS 05/31/17
2. CORROSION FOR CONSTRUCTION	TH 08/12/17

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER:

G1.0